

# LED MODULES READYLINE COB

BUILT-IN MODULE



## LED MODULES READYLINE COB

**EDC\_38C\_xxW\_xxx\_120A\_VS4**

### Typical Applications

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




### LED Modules ReadyLine COB

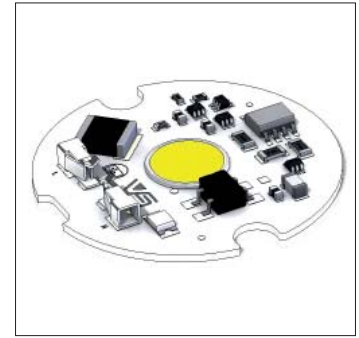
- **DIRECT MAINS CONNECTION**
- **DIMMABLE**
- **HIGH POWER FACTOR**
- **LONG SERVICE LIFETIME: 50,000 HOURS**
- **UL APPROVED**



## LED Modules ReadyLine COB

### 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  $t_c = 55\text{ °C}$

Type	Supply voltage AC typ. V $\pm$ 10%	Operation frequency Hz	Power consumption at 120 V typ. W	Power factor	Total harmonic distortion (THD) %
EDC_38C_4W_xxx_120A_VS4	120	50-60	4	0.95	< 20
EDC_38C_6W_xxx_120A_VS4	120	50-60	6	0.95	< 20
EDC_38C_8W_xxx_120A_VS4	120	50-60	8	0.95	< 20

### Maximum Ratings

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

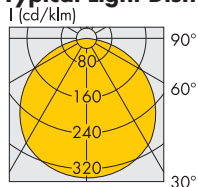
Type	Power consumption W	Operation voltage range AC (V)		Operation temperature range at $t_c$ point		Ambient temperature range		Storage temperature range	
		min.	max.	°C min.	°C max.	°C min.	°C max.	°C min.	°C max.
EDC_38C_xW_xxx_120A_VS4	4, 6	110	130	-30	+65	-30	+55	-30	+85
EDC_38C_8W_xxx_120A_VS4	8	110	130	-30	+65	-30	+50	-30	+85

### Operating Life

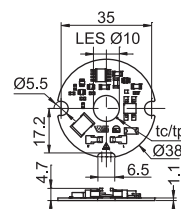
L70/B50

Temperature at $t_c$	Service life time
55 °C	50,000 h
65 °C	40,000 h

### Typical Light Distribution Curve



### Mechanical Dimensions



**4 W, 6 W, 8 W**

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

## LED Modules ReadyLine COB

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

Type 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	<b>563996</b>	warm white	2700	318	353	88	120	80
	EDC_38C_4W830_120A_VS4	<b>563997</b>	warm white	3000	342	380	95	120	80
	EDC_38C_4W835_120A_VS4	<b>563998</b>	warm white	3500	349	388	97	120	80
	EDC_38C_4W840_120A_VS4	<b>563999</b>	neutral white	4000	356	395	99	120	80
	EDC_38C_4W850_120A_VS4	<b>564000</b>	cool white	5000	366	407	102	120	80
	EDC_38C_4W927_120A_VS4	<b>564001</b>	warm white	2700	280	311	78	120	90
	EDC_38C_4W930_120A_VS4	<b>564002</b>	warm white	3000	301	334	84	120	90
	EDC_38C_4W935_120A_VS4	<b>564003</b>	warm white	3500	307	341	85	120	90
	EDC_38C_4W940_120A_VS4	<b>564004</b>	neutral white	4000	313	348	87	120	90
	EDC_38C_4W950_120A_VS4	<b>564005</b>	cool white	5000	322	358	89	120	90
6	EDC_38C_6W827_120A_VS4	<b>564006</b>	warm white	2700	477	530	88	120	80
	EDC_38C_6W830_120A_VS4	<b>564007</b>	warm white	3000	513	570	95	120	80
	EDC_38C_6W835_120A_VS4	<b>564008</b>	warm white	3500	523	581	97	120	80
	EDC_38C_6W840_120A_VS4	<b>564009</b>	neutral white	4000	534	593	99	120	80
	EDC_38C_6W850_120A_VS4	<b>564010</b>	cool white	5000	549	610	102	120	80
	EDC_38C_6W927_120A_VS4	<b>564011</b>	warm white	2700	420	466	78	120	90
	EDC_38C_6W930_120A_VS4	<b>564012</b>	warm white	3000	451	502	84	120	90
	EDC_38C_6W935_120A_VS4	<b>564013</b>	warm white	3500	460	512	85	120	90
	EDC_38C_6W940_120A_VS4	<b>564014</b>	neutral white	4000	469	522	87	120	90
	EDC_38C_6W950_120A_VS4	<b>564015</b>	cold white	5000	483	537	89	120	90
8	EDC_38C_8W827_120A_VS4	<b>564016</b>	warm white	2700	636	707	88	120	80
	EDC_38C_8W830_120A_VS4	<b>564017</b>	warm white	3000	684	760	95	120	80
	EDC_38C_8W835_120A_VS4	<b>564018</b>	warm white	3500	698	775	97	120	80
	EDC_38C_8W840_120A_VS4	<b>564019</b>	neutral white	4000	711	790	99	120	80
	EDC_38C_8W850_120A_VS4	<b>564020</b>	cold white	5000	732	813	102	120	80
	EDC_38C_8W927_120A_VS4	<b>564021</b>	warm white	2700	560	622	78	120	90
	EDC_38C_8W930_120A_VS4	<b>564022</b>	warm white	3000	602	669	84	120	90
	EDC_38C_8W935_120A_VS4	<b>564023</b>	warm white	3500	614	682	85	120	90
	EDC_38C_8W940_120A_VS4	<b>564024</b>	neutral white	4000	626	696	87	120	90
	EDC_38C_8W950_120A_VS4	<b>564025</b>	cold white	5000	644	716	89	120	90

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

**Minimum order quantity: 200 pcs.**

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# LED Modules ReadyLine COB

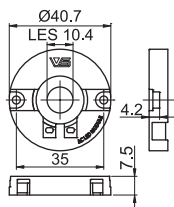
## Accessories

### Holder

Dimensions (ØxH): 40.7x7.5 mm

Material: plastic, white

**Ref. No.: 563993**

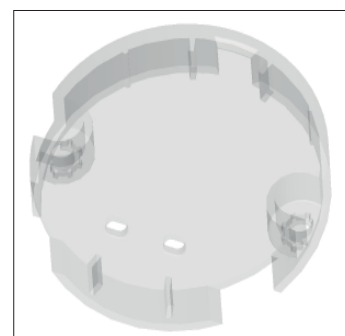
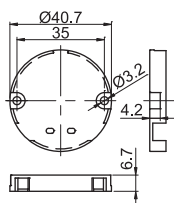


### Cover

Material: PC, transparent

Dimensions (ØxH): 40.7x6.7 mm

**Ref. No.: 563994**

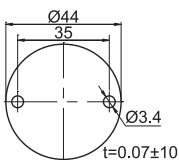


### Thermal Pad

Dimensions (ØxH): 44x0.07 mm

Thermal conductivity  $\lambda$ : 2 W/mK

**Ref. No.: 563995**





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## LED Modules ReadyLine COB

### 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 mm<sup>2</sup> – 0.96 mm<sup>2</sup>
  - Solid: 0.324 mm<sup>2</sup> – 0.82 mm<sup>2</sup>

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.
- 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](http://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 SILV-600P
- LUTRON MIR-600
- LUTRON MIR-600M-WH
- LUTRON DIVA. DV-600P
- LUTRON ARIADNI. AWV-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 GLX52-F04160

# LED MODULES READYLINE COB

BUILT-IN MODULE



## LED MODULES READYLINE COB

**EDC\_57C\_xxW\_xxx\_120A\_VS4**

### Typical Applications

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

### LED Modules ReadyLine COB

- **DIRECT MAINS CONNECTION**
- **DIMMABLE**
- **HIGH POWER FACTOR**
- **LONG SERVICE LIFETIME: 50,000 HOURS**
- **UL APPROVED**

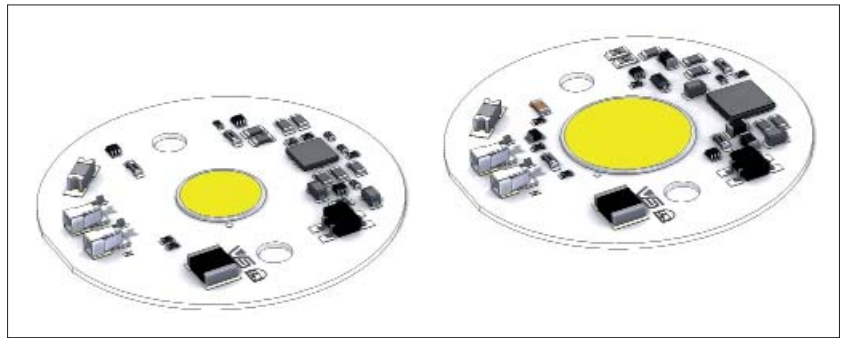




## LED Modules ReadyLine COB

### Technical Notes

- LED built-in module for integration into luminaires
- Mains voltage: 120 V AC
- Power factor: > 0.95
- THD: < 20 %
- Dimensions (ØxH): Ø 57 x 4.7 mm
- On-Board push-in connector
- Light emitting surface (LES)
  - Ø 14 mm: 10 W, 15 W, 20 W
  - Ø 21 mm: 30 W, 40 W



### Electrical Characteristics

at  $t_c = 55\text{ °C}$

Type	Supply voltage AC typ. V ± 10%	Operation frequency Hz	Power consumption at 120 V typ. W	Power factor	Total harmonic distortion (THD) %
EDC_57C_10W_xxx_120A_VS4	120	50–60	10	0.95	< 20
EDC_57C_15W_xxx_120A_VS4	120	50–60	15	0.95	< 20
EDC_57C_20W_xxx_120A_VS4	120	50–60	20	0.95	< 20
EDC_57C_30W_xxx_120A_VS4	120	50–60	30	0.95	< 20
EDC_57C_40W_xxx_120A_VS4	120	50–60	40	0.95	< 20

### Maximum Ratings

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

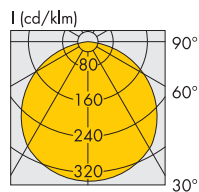
Type	Power consumption W	Operation voltage range AC [V]		Operation temperature range at $t_c$ point		Ambient temperature range		Storage temperature range	
		min.	max.	°C min.	°C max.	°C min.	°C max.	°C min.	°C max.
EDC_57C_xW_xxx_120A_VS4	10, 15, 20	110	130	-30	+70	-30	+50	-30	+85
EDC_57C_30W_xxx_120A_VS4	30	110	130	-30	+70	-30	+40	-30	+85
EDC_57C_40W_xxx_120A_VS4	40	110	130	-30	+70	-30	+35	-30	+85

### Operating Life

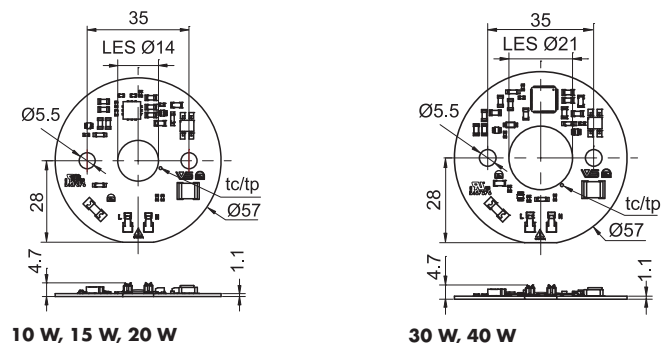
L70/B50

Temperature at $t_c$	Service life time
55 °C	50,000 h
70 °C	35,000 h

### Typical Light Distribution Curve



### Mechanical Dimensions



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## LED Modules ReadyLine COB

**Optical Characteristics** at  $t_c1 = 55^\circ\text{C}$ , at 120 V AC

Type Output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)**			Typ. beam angle °	Typ. CRI R <sub>G</sub>	Energy efficiency
					min. lm	typ. lm	typ. lm/W			
10	EDC_57C_10W827_120A_VS4	<b>564057</b>	warm white	2700	795	884	88	120	80	A+
	EDC_57C_10W830_120A_VS4	<b>564058</b>	warm white	3000	855	950	95	120	80	A+
	EDC_57C_10W835_120A_VS4	<b>564059</b>	warm white	3500	872	969	97	120	80	A+
	EDC_57C_10W840_120A_VS4	<b>564060</b>	neutral white	4000	889	988	99	120	80	A+
	EDC_57C_10W850_120A_VS4	<b>564061</b>	cool white	5000	915	1017	102	120	80	A+
15	EDC_57C_15W827_120A_VS4	<b>564067</b>	warm white	2700	1193	1325	88	120	80	A+
	EDC_57C_15W830_120A_VS4	<b>564068</b>	warm white	3000	1283	1425	95	120	80	A+
	EDC_57C_15W835_120A_VS4	<b>564069</b>	warm white	3500	1308	1454	97	120	80	A+
	EDC_57C_15W840_120A_VS4	<b>564070</b>	neutral white	4000	1334	1482	99	120	80	A+
	EDC_57C_15W850_120A_VS4	<b>564071</b>	cool white	5000	1372	1525	102	120	80	A+
20	EDC_57C_20W827_120A_VS4	<b>564077</b>	warm white	2700	1590	1767	88	120	80	A+
	EDC_57C_20W830_120A_VS4	<b>564078</b>	warm white	3000	1710	1900	95	120	80	A+
	EDC_57C_20W835_120A_VS4	<b>564079</b>	warm white	3500	1744	1938	97	120	80	A+
	EDC_57C_20W840_120A_VS4	<b>564080</b>	neutral white	4000	1778	1976	99	120	80	A+
	EDC_57C_20W850_120A_VS4	<b>564081</b>	cool white	5000	1830	2033	102	120	80	A+
30	EDC_57C_30W827_120A_VS4	<b>564087</b>	warm white	2700	2314	2571	86	120	80	A+
	EDC_57C_30W830_120A_VS4	<b>564088</b>	warm white	3000	2488	2765	92	120	80	A+
	EDC_57C_30W835_120A_VS4	<b>564089</b>	warm white	3500	2538	2820	94	120	80	A+
	EDC_57C_30W840_120A_VS4	<b>564090</b>	neutral white	4000	2588	2875	96	120	80	A+
	EDC_57C_30W850_120A_VS4	<b>564091</b>	cold white	5000	2662	2958	99	120	80	A+
40	EDC_57C_40W827_120A_VS4	<b>564097</b>	warm white	2700	2958	3287	82	120	80	A+
	EDC_57C_40W830_120A_VS4	<b>564098</b>	warm white	3000	3181	3534	88	120	80	A+
	EDC_57C_40W835_120A_VS4	<b>564099</b>	warm white	3500	3244	3605	90	120	80	A+
	EDC_57C_40W840_120A_VS4	<b>564100</b>	neutral white	4000	3308	3675	92	120	80	A+
	EDC_57C_40W850_120A_VS4	<b>564101</b>	cold white	5000	3403	3781	95	120	80	A+

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

**Minimum order quantity: 100 pcs.**

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## LED Modules ReadyLine COB – HiCRI

**Optical Characteristics** at  $t_c1 = 55^\circ\text{C}$ , at 120 V AC

Type Output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)**			Typ. beam angle °	Typ. CRI $R_G$	Energy efficiency
					min. lm	typ. lm	typ. lm/W			
10	EDC_57C_10W927_120A_VS4	<b>564062</b>	warm white	2700	700	777	78	120	90	A+
	EDC_57C_10W930_120A_VS4	<b>564063</b>	warm white	3000	752	836	84	120	90	A+
	EDC_57C_10W935_120A_VS4	<b>564064</b>	warm white	3500	767	853	85	120	90	A+
	EDC_57C_10W940_120A_VS4	<b>564065</b>	neutral white	4000	782	869	87	120	90	A+
	EDC_57C_10W950_120A_VS4	<b>564066</b>	cool white	5000	805	895	89	120	90	A+
15	EDC_57C_15W927_120A_VS4	<b>564072</b>	warm white	2700	1050	1166	78	120	90	A
	EDC_57C_15W930_120A_VS4	<b>564073</b>	warm white	3000	1129	1254	84	120	90	A+
	EDC_57C_15W935_120A_VS4	<b>564074</b>	warm white	3500	1151	1279	85	120	90	A+
	EDC_57C_15W940_120A_VS4	<b>564075</b>	neutral white	4000	1174	1304	87	120	90	A+
	EDC_57C_15W950_120A_VS4	<b>564076</b>	cool white	5000	1208	1342	89	120	90	A+
20	EDC_57C_20W927_120A_VS4	<b>564082</b>	warm white	2700	1399	1555	78	120	90	A
	EDC_57C_20W930_120A_VS4	<b>564083</b>	warm white	3000	1505	1672	84	120	90	A
	EDC_57C_20W935_120A_VS4	<b>564084</b>	warm white	3500	1535	1705	85	120	90	A+
	EDC_57C_20W940_120A_VS4	<b>564085</b>	neutral white	4000	1565	1739	87	120	90	A+
	EDC_57C_20W950_120A_VS4	<b>564086</b>	cool white	5000	1610	1789	89	120	90	A+
30	EDC_57C_30W927_120A_VS4	<b>564092</b>	warm white	2700	2036	2262	75	120	90	A
	EDC_57C_30W930_120A_VS4	<b>564093</b>	warm white	3000	2189	2433	81	120	90	A
	EDC_57C_30W935_120A_VS4	<b>564094</b>	warm white	3500	2233	2481	83	120	90	A+
	EDC_57C_30W940_120A_VS4	<b>564095</b>	neutral white	4000	2277	2530	84	120	90	A+
	EDC_57C_30W950_120A_VS4	<b>564096</b>	cold white	5000	2343	2603	87	120	90	A+
40	EDC_57C_40W927_120A_VS4	<b>564102</b>	warm white	2700	2609	2892	72	120	90	A
	EDC_57C_40W930_120A_VS4	<b>564103</b>	warm white	3000	2799	3110	78	120	90	A
	EDC_57C_40W935_120A_VS4	<b>564104</b>	warm white	3500	2855	3172	79	120	90	A+
	EDC_57C_40W940_120A_VS4	<b>564105</b>	neutral white	4000	2911	3234	81	120	90	A+
	EDC_57C_40W950_120A_VS4	<b>564106</b>	cold white	5000	2995	3328	83	120	90	A+

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

**Minimum order quantity: 100 pcs.**

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

# Accessories for LED Modules ReadyLine COB

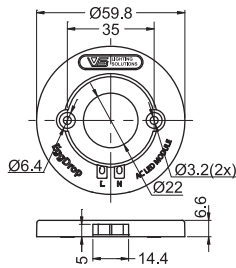


## Holder

Dimensions (ØxH): 59.8x6.6 mm

Material: plastic, white

**Ref. No.: 559786**



## Holder for EVO reflectors

For COB Type EDC57C

Cover for LES: PC, transparent  
(opaque cover on request)

Dimensions (ØxH): 60 x14.65 mm

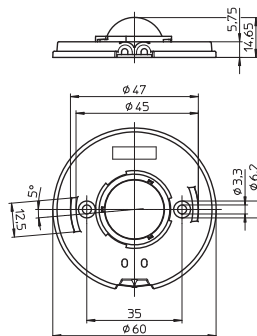
Packaging unit: 72 pcs

Material: PC, black, inner ring: metallized

**Ref. No.: 561847**

Material: PC, white

**Ref. No.: 563095**



## Thermal Pad

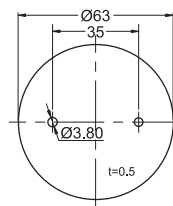
Dimensions (ØxH): 63x0.5 mm

Thermal conductivity  $\lambda$ :

2 W/mK (10 W, 15 W, 20 W, 30 W)

5 W/mK (40 W)

**Ref. No.: 559883**



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

## Accessories for LED Modules ReadyLine COB

### Exchangeable aluminum reflectors

Technical notes

Reflectors made of aluminium with bayonet fixation

Surface: anodised

Weight: 27/17 g (D90/D75)

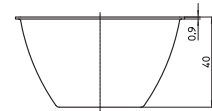
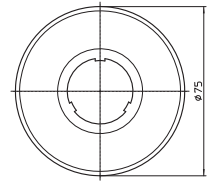
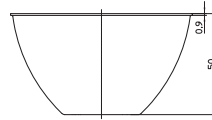
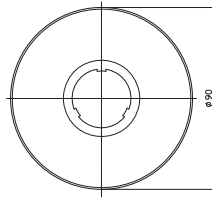
Packaging unit: 18 pcs.

### Usage and maintenance

If necessary clean reflectors with mild soap, water and soft cloth.

Never use any commercial cleaning solvents on reflectors, like alcohol.

Please handle or install reflectors with wearing gloves, skin oils may damage reflector or its optical characteristic.



Ref. No.	Beam characteristic	Beam angle (°)	
		EVO 75 R 10	NEXT 111, EVO 90 R 20
<b>Reflector D90 - H = 50</b>			
<b>557359</b>	narrow	14	14
<b>557360</b>	medium	24	24
<b>557361</b>	wide	36	36
<b>563446</b>	extra wide	48	48
<b>Reflector D75 - H = 40</b>			
<b>557152</b>	narrow	14	14
<b>557153</b>	medium	24	24
<b>557154</b>	wide	32	32
<b>562157</b>	extra wide	60	60



It's possible to use all the reflectors on the same holder.

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

## LED Modules ReadyLine COB

### 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.
- When using the 30 W and 40 W version, the thermal pad (Ref. No. 559883) and the holder (Ref. No. 559786) are mandatory to comply with applicable safety regulations.
- 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 mm<sup>2</sup> – 0.96 mm<sup>2</sup>
  - Solid: 0.324 mm<sup>2</sup> – 0.82 mm<sup>2</sup>

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.
- 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](http://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.

## 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 SILV-600P
- LUTRON MIR-600
- LUTRON MIR-600M-WH
- LUTRON DIVA. DV-600P
- LUTRON ARIADNI. AWV-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 GLX52-F04160

# LED MODULES ReadyLine COB

BUILT-IN MODULE



## LED MODULES ReadyLine COB

**EDC\_38C\_xxW\_xxx\_230A\_VS4**

### Typical Applications

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

### LED Modules ReadyLine COB

- **DIRECT MAINS CONNECTION**
- **DIMMABLE**
- **HIGH POWER FACTOR**
- **LONG SERVICE LIFETIME: 50,000 HOURS**
- **DEKRA APPROVED**





## LED Modules ReadyLine COB

### Technical Notes

- LED built-in module for integration into luminaires
- Mains voltage: 230 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	Supply voltage AC typ. V $\pm$ 10%	Operation frequency Hz	Power consumption at 120 V typ. W	Power factor	Total harmonic distortion (THD) %
EDC_38C_4W_xxx_230A_VS4	220-240	50-60	4	0.95	< 20
EDC_38C_6W_xxx_230A_VS4	220-240	50-60	6	0.95	< 20
EDC_38C_8W_xxx_230A_VS4	220-240	50-60	8	0.95	< 20

### Maximum Ratings

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

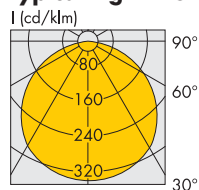
Type	Power consumption W	Operation voltage range AC (V)		Operation temperature range at $t_c$ point		Ambient temperature range		Storage temperature range	
		min.	max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.
EDC_38C_xW_xxx_230A_VS4	4, 6	198	264	-30	+65	-30	+55	-30	+85
EDC_38C_8W_xxx_230A_VS4	8	198	264	-30	+65	-30	+50	-30	+85

### Operating Life

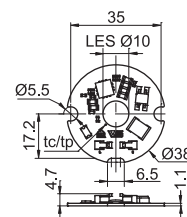
L70/B50

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

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

## LED Modules ReadyLine COB

Optical Characteristics at  $t_c = 55\text{ °C}$ , at 230 V AC

Type Output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)**			Typ. beam angle (°)	Typ. CRI R <sub>a</sub>	Energy efficiency
					min. lm	typ. lm	typ. lm/W			
4	EDC_38C_4W827_230A_VS4	<b>564026</b>	warm white	2700	308	340	85	120	80	A+
	EDC_38C_4W830_230A_VS4	<b>564027</b>	warm white	3000	316	352	88	120	80	A+
	EDC_38C_4W835_230A_VS4	<b>564028</b>	warm white	3500	324	360	90	120	80	A+
	EDC_38C_4W840_230A_VS4	<b>564029</b>	neutral white	4000	332	368	92	120	80	A++
	EDC_38C_4W850_230A_VS4	<b>564030</b>	cool white	5000	340	376	94	120	80	A++
	EDC_38C_4W927_230A_VS4	<b>564031</b>	warm white	2700	260	288	72	120	90	A+
	EDC_38C_4W930_230A_VS4	<b>564033</b>	warm white	3000	272	300	75	120	90	A+
	EDC_38C_4W935_230A_VS4	<b>564034</b>	warm white	3500	280	308	77	120	90	A+
	EDC_38C_4W940_230A_VS4	<b>564035</b>	neutral white	4000	288	316	79	120	90	A+
	EDC_38C_4W950_230A_VS4	<b>564036</b>	cool white	5000	296	324	81	120	90	A+
6	EDC_38C_6W827_230A_VS4	<b>564037</b>	warm white	2700	432	480	80	120	80	A+
	EDC_38C_6W830_230A_VS4	<b>564038</b>	warm white	3000	450	498	83	120	80	A+
	EDC_38C_6W835_230A_VS4	<b>564039</b>	warm white	3500	462	510	85	120	80	A+
	EDC_38C_6W840_230A_VS4	<b>564040</b>	neutral white	4000	474	522	87	120	80	A+
	EDC_38C_6W850_230A_VS4	<b>564041</b>	cool white	5000	486	534	89	120	80	A+
	EDC_38C_6W927_230A_VS4	<b>564042</b>	warm white	2700	366	408	68	120	90	A+
	EDC_38C_6W930_230A_VS4	<b>564043</b>	warm white	3000	378	420	70	120	90	A+
	EDC_38C_6W935_230A_VS4	<b>564044</b>	warm white	3500	390	432	72	120	90	A+
	EDC_38C_6W940_230A_VS4	<b>564045</b>	neutral white	4000	402	444	74	120	90	A+
	EDC_38C_6W950_230A_VS4	<b>564046</b>	cold white	5000	414	456	76	120	90	A+
8	EDC_38C_8W827_230A_VS4	<b>564047</b>	warm white	2700	568	632	79	120	80	A+
	EDC_38C_8W830_230A_VS4	<b>564048</b>	warm white	3000	592	656	82	120	80	A+
	EDC_38C_8W835_230A_VS4	<b>564049</b>	warm white	3500	608	672	84	120	80	A+
	EDC_38C_8W840_230A_VS4	<b>564050</b>	neutral white	4000	624	688	86	120	80	A+
	EDC_38C_8W850_230A_VS4	<b>564051</b>	cold white	5000	640	704	88	120	80	A+
	EDC_38C_8W927_230A_VS4	<b>564052</b>	warm white	2700	488	544	68	120	90	A+
	EDC_38C_8W930_230A_VS4	<b>564053</b>	warm white	3000	504	560	70	120	90	A+
	EDC_38C_8W935_230A_VS4	<b>564054</b>	warm white	3500	520	576	72	120	90	A+
	EDC_38C_8W940_230A_VS4	<b>564055</b>	neutral white	4000	536	592	74	120	90	A+
	EDC_38C_8W950_230A_VS4	<b>564056</b>	cold white	5000	552	608	76	120	90	A+

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

**Minimum order quantity: 200 pcs.**

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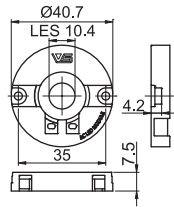
## LED Modules ReadyLine COB Accessories

### Holder

Dimensions (ØxH): 40.7x7.5 mm

Material: plastic, white

**Ref. No.: 563993**

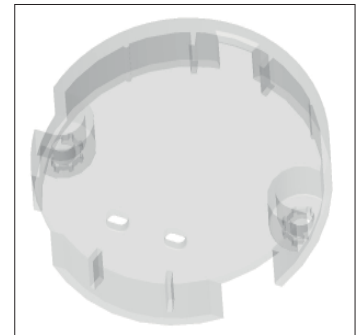
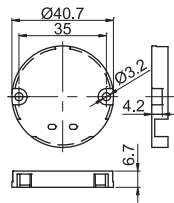


### Cover

Material: PC, transparent

Dimensions (ØxH): 40.7x6.7 mm

**Ref. No.: 563994**

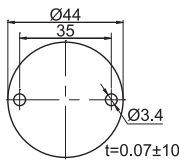


### Thermal Pad

Dimensions (ØxH): 44x0.07 mm

Thermal conductivity  $\lambda$ : 2 W/mK

**Ref. No.: 563995**





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## LED Modules ReadyLine COB

### Assembly and Safety Information

The LED modules are designed for direct mains operation (230 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. EN 60598 for Europe). Depending on the use of the luminaire in different countries (export), the country specific safety standards have to be regarded (e.g. EN 60598 for Europe).
  - 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. EN 60598).
- 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 mm<sup>2</sup>– 0.96 mm<sup>2</sup>
  - Solid: 0.324 mm<sup>2</sup> – 0.82 mm<sup>2</sup>

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 (EN 60598). 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.

- To ensure problem-free operation, the specified maximum temperature at the  $t_c$  point (see "Operating Life") must be observed (measured in accordance with EN 60598-1). 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.
- The photobiological safety of the LED modules is classified into risk groups in accordance with EN 62471: 2008 and IEC TR 62778: risk group 1

### Applied Standards

- EN 62031  
LED modules for general lighting – Safety specifications
- EN 62471  
Photobiological safety of lamps and lamp systems
- EN 55015  
Radio disturbance emissions
- EN 61000-3-2  
Limits for harmonic emissions
- EN 61547  
Immunity requirements

### 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](http://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.

## 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.

- Vossloh-Schwabe DimONE 186607
- Vossloh-Schwabe DimONE Bluetooth® 186608
- Vossloh-Schwabe Dimmer 250 W 554591
- Vossloh-Schwabe Dimmer 500 W 554592
- Jung 225TDE Insta 51040
- Gira 030700 = Insta
- Berker 2874
- Berker 286710 Insta 5190
- Busch Jäger 6513 U-102
- Busch Jäger 6519U
- Sygonix 33595A
- Merten MEG5136-0000
- LeGrand ADW-ETL4-420VA
- Hager WUD82 + WYA920
- Merten 577899 + 570419
- Gira 2262 Anschn.
- Jung 225 NVDE Anschn.
- Berker 85421200 leading edge Anf. 2013 / equiv. Hager Anf. 2013 both Touch
- Sygonix 33596V leading edge
- Sygonix 33594C leading edge
- Sygonix 33594R leading edge
- Merten MEG5170-0300 + 343519
- Eltako EUD61NPN univ.
- Eltako EUD61M-UC univ.
- Eltako EUD61NP univ.
- Hager EVN002 univ.
- Hager EVN004 univ.
- Berker 16701 univ.
- Jung UD1255REG univ.
- Busch Jäger 6583 univ.
- Eltako EUD12D univ. / Eltako EUD12F univ. / Eltako EUD12Z univ.
- Eltako EUD12Z univ.

# LED MODULES READYLINE COB

BUILT-IN MODULE



## LED MODULES READYLINE COB

**EDC\_57C\_xxW\_xxx\_230A\_VS4**

### Typical Applications

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

### LED Modules ReadyLine COB

- **DIRECT MAINS CONNECTION**
- **DIMMABLE**
- **HIGH POWER FACTOR**
- **LONG SERVICE LIFETIME: 50,000 HOURS**
- **DEKRA APPROVED**



## LED Modules ReadyLine COB

### Technical Notes

- LED built-in module for integration into luminaires
- Mains voltage: 230 V AC
- Power factor: > 0.95
- THD: < 20 %
- Dimensions (ØxH): Ø 57 x 4.7 mm
- On-Board push-in connector
- Light emitting surface (LES)
  - Ø 14 mm: 10 W, 15 W, 20 W
  - Ø 21 mm: 30 W, 40 W



### Electrical Characteristics

at  $t_c1 = 55\text{ °C}$

Type	Supply voltage AC typ. V ± 10%	Operation frequency Hz	Power consumption at 230 V typ. W	Power factor	Total harmonic distortion (THD) %
EDC_57C_10W_xxx_230A_VS4	220-240	50/60	10	0.95	< 20
EDC_57C_15W_xxx_230A_VS4	220-240	50/60	15	0.95	< 20
EDC_57C_20W_xxx_230A_VS4	220-240	50/60	20	0.95	< 20
EDC_57C_30W_xxx_230A_VS4	220-240	50/60	30	0.95	< 20
EDC_57C_40W_xxx_230A_VS4	220-240	50/60	40	0.95	< 20

### Maximum Ratings

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

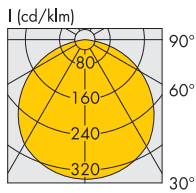
Type	Operation voltage range AC (V)		Operation temperature range at $t_c$ point		Ambient temperature range		Storage temperature range	
	min.	max.	°C min.	°C max.	°C min.	°C max.	°C min.	°C max.
EDC_57C_10W_xxx_230A_VS4	198	264	-30	+85	-30	+60	-30	+85
EDC_57C_40W_xxx_230A_VS4	198	264	-30	+85	-30	+55	-30	+85

### Operating Life

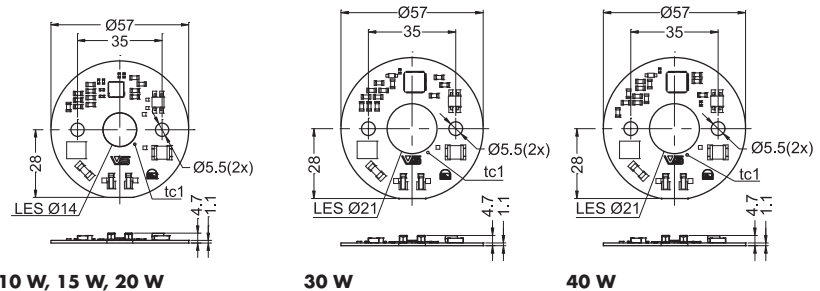
50,000 h (L70/B50)

at  $t_c1 = 55\text{ °C}$

### Typical Light Distribution Curve



### Mechanical Dimensions



10 W, 15 W, 20 W

30 W

40 W

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## LED Modules ReadyLine COB

### Optical Characteristics

at  $t_c = 55\text{ °C}$ , at 230 V AC

Type Output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)**			Typ. beam angle °	Typ. CRI R <sub>G</sub>	Energy efficiency
					min. lm	typ. lm	typ. lm/W			
10 W	EDC57C_10W827_230A_VS4	<b>559771</b>	warm white	2700	780	850	85	120	80	A+
	EDC57C_10W830_230A_VS4	<b>559772</b>	warm white	3000	830	900	90	120	80	A+
	EDC57C_10W835_230A_VS4	<b>559773</b>	warm white	3500	880	930	93	120	80	A+
	EDC57C_10W840_230A_VS4	<b>559774</b>	neutral white	4000	910	950	95	120	80	A+
	EDC57C_10W850_230A_VS4	<b>559775</b>	cool white	5000	930	1000	100	120	80	A+
15 W	EDC57C_15W827_230A_VS4	<b>559776</b>	warm white	2700	1170	1275	85	120	80	A+
	EDC57C_15W830_230A_VS4	<b>559777</b>	warm white	3000	1245	1350	90	120	80	A+
	EDC57C_15W835_230A_VS4	<b>559778</b>	warm white	3500	1290	1395	93	120	80	A+
	EDC57C_15W840_230A_VS4	<b>559779</b>	neutral white	4000	1320	1425	95	120	80	A+
	EDC57C_15W850_230A_VS4	<b>559780</b>	cool white	5000	1395	1500	100	120	80	A+
20 W	EDC57C_20W827_230A_VS4	<b>559781</b>	warm white	2700	1560	1700	85	120	80	A+
	EDC57C_20W830_230A_VS4	<b>559782</b>	warm white	3000	1660	1800	90	120	80	A+
	EDC57C_20W835_230A_VS4	<b>559783</b>	warm white	3500	1720	1860	93	120	80	A+
	EDC57C_20W840_230A_VS4	<b>559784</b>	neutral white	4000	1760	1900	95	120	80	A+
	EDC57C_20W850_230A_VS4	<b>559785</b>	cool white	5000	1860	2000	100	120	80	A+
30 W	EDC57C_30W827_230A_VS4	<b>560985</b>	warm white	2700	2340	2550	85	120	80	A+
	EDC57C_30W830_230A_VS4	<b>560986</b>	warm white	3000	2490	2700	90	120	80	A+
	EDC57C_30W835_230A_VS4	<b>560987</b>	warm white	3500	2580	2790	93	120	80	A+
	EDC57C_30W840_230A_VS4	<b>560988</b>	neutral white	4000	2640	2850	95	120	80	A+
	EDC57C_30W850_230A_VS4	<b>560989</b>	cool white	5000	2790	3000	100	120	80	A+
40 W	EDC57C_40W827_230A_VS4	<b>560990</b>	warm white	2700	3120	3400	85	120	80	A+
	EDC57C_40W830_230A_VS4	<b>560991</b>	warm white	3000	3320	3600	90	120	80	A+
	EDC57C_40W835_230A_VS4	<b>560992</b>	warm white	3500	3440	3720	93	120	80	A+
	EDC57C_40W840_230A_VS4	<b>560993</b>	neutral white	4000	3529	3800	95	120	80	A+
	EDC57C_40W850_230A_VS4	<b>560994</b>	cool white	5000	3720	4000	100	120	80	A+

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

**Minimum order quantity: 100 pcs.**

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## LED Modules ReadyLine COB – HiCRI

### Optical Characteristics

at  $t_c = 55\text{ °C}$ , at 230 V AC

Type Output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)* **			Typ. beam angle °	Typ. CRI R <sub>a</sub>	Energy efficiency
					min. lm	typ. lm	typ. lm/W			
10W	EDC57C_10W927_230A_VS4	<b>563463</b>	warm white	2700	660	730	73	120	90	A+
	EDC57C_10W930_230A_VS4	<b>563464</b>	warm white	3000	700	770	77	120	90	A+
	EDC57C_10W935_230A_VS4	<b>563470</b>	warm white	3500	720	790	79	120	90	A+
	EDC57C_10W940_230A_VS4	<b>563477</b>	neutral white	4000	730	810	81	120	90	A+
	EDC57C_10W950_230A_VS4	<b>563479</b>	cool white	5000	750	830	83	120	90	A+
15W	EDC57C_15W927_230A_VS4	<b>563480</b>	warm white	2700	990	1092	73	120	90	A
	EDC57C_15W930_230A_VS4	<b>563481</b>	warm white	3000	1050	1155	77	120	90	A+
	EDC57C_15W935_230A_VS4	<b>563482</b>	warm white	3500	1080	1185	79	120	90	A+
	EDC57C_15W940_230A_VS4	<b>563483</b>	neutral white	4000	1095	1215	81	120	90	A+
	EDC57C_15W950_230A_VS4	<b>563484</b>	cool white	5000	1125	1245	83	120	90	A+
20W	EDC57C_20W927_230A_VS4	<b>563485</b>	warm white	2700	1300	1440	72	120	90	A
	EDC57C_20W930_230A_VS4	<b>563486</b>	warm white	3000	1380	1520	75	120	90	A
	EDC57C_20W935_230A_VS4	<b>563487</b>	warm white	3500	1420	1560	76	120	90	A+
	EDC57C_20W940_230A_VS4	<b>563488</b>	neutral white	4000	1440	1600	80	120	90	A+
	EDC57C_20W950_230A_VS4	<b>563489</b>	cool white	5000	1480	1640	82	120	90	A+
30W	EDC57C_30W927_230A_VS4	<b>563490</b>	warm white	2700	1980	2190	73	120	90	A
	EDC57C_30W930_230A_VS4	<b>563491</b>	warm white	3000	2100	2310	77	120	90	A
	EDC57C_30W935_230A_VS4	<b>563492</b>	warm white	3500	2160	2370	79	120	90	A+
	EDC57C_30W940_230A_VS4	<b>563493</b>	neutral white	4000	2190	2430	81	120	90	A+
	EDC57C_30W950_230A_VS4	<b>563494</b>	cool white	5000	2250	2490	83	120	90	A+
40W	EDC57C_40W927_230A_VS4	<b>563495</b>	warm white	2700	2600	2880	72	120	90	A
	EDC57C_40W930_230A_VS4	<b>563496</b>	warm white	3000	2760	3040	76	120	90	A
	EDC57C_40W935_230A_VS4	<b>563497</b>	warm white	3500	2840	3120	78	120	90	A+
	EDC57C_40W940_230A_VS4	<b>563498</b>	neutral white	4000	2880	3200	80	120	90	A+
	EDC57C_40W950_230A_VS4	<b>563499</b>	cool white	5000	2960	3280	82	120	90	A+

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

**Minimum order quantity: 100 pcs.**

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## Accessories for LED Modules ReadyLine COB

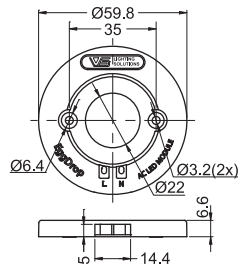


### Holder

Dimensions (ØxH): 59.8x6.6 mm

Material: plastic, white

**Ref. No.: 559786**



### Holder for EVO reflectors

For COB Type EDC57C

Cover for LES: PC, transparent  
(opaque cover on request)

Dimensions (ØxH): 60 x14.65 mm

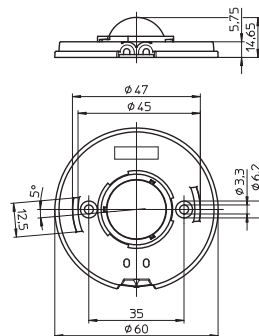
Packaging unit: 72 pcs

Material: PC, black, inner ring: metallized

**Ref. No.: 561847**

Material: PC, white

**Ref. No.: 563095**



### Thermal Pad

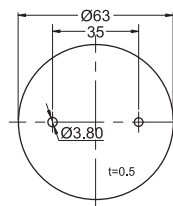
Dimensions (ØxH): 63x0.5 mm

Thermal conductivity  $\lambda$ :

2 W/mK (10 W, 15 W, 20 W, 30 W)

5 W/mK (40 W)

**Ref. No.: 559883**



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## Accessories for LED Modules ReadyLine COB

### Exchangeable aluminum reflectors

Technical notes

Reflectors made of aluminium with bayonet fixation

Surface: anodised

Weight: 27/17 g (D90/D75)

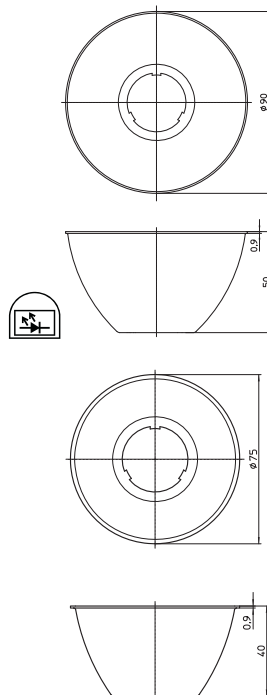
Packaging unit: 18 pcs.

### Usage and maintenance

If necessary clean reflectors with mild soap, water and soft cloth.

Never use any commercial cleaning solvents on reflectors, like alcohol.

Please handle or install reflectors with wearing gloves, skin oils may damage reflector or its optical characteristic.



Ref. No.	Beam characteristic	Beam angle (°)	
		EVO 75 R 10	NEXT 111, EVO 90 R 20
<b>Reflector D90 - H = 50</b>			
557359	narrow	14	14
557360	medium	24	24
557361	wide	36	36
563446	extra wide	48	48
<b>Reflector D75 - H = 40</b>			
557152	narrow	14	14
557153	medium	24	24
557154	wide	32	32
562157	extra wide	60	60

It's possible to use all the reflectors on the same holder.

### Assembly and Safety Information

The LED modules are designed for direct mains operation (230 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.
- When using the 30 W and 40 W version, the thermal pad (Ref. No. 559883) and the holder (Ref. No. 559786) are mandatory to comply with applicable safety regulations. Vossloh-Schwabe recommends to use the holder (Ref. No. 559786) and the thermal pad (Ref. No. 559883), in order to comply with applicable safety regulations.

- 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. EN 60598 for Europe). Depending on the use of the luminaire in different countries (export), the country specific safety standards have to be regarded (e.g. EN 60598 for Europe).
  - 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!!!



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## LED Modules ReadyLine COB

### Assembly and Safety Information

- 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. EN 60598).
- 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: 0.45–0.96 mm<sup>2</sup>
  - Solid: 0.324–0.82 mm<sup>2</sup>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 (EN 60598). 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.
- To ensure problem-free operation, the specified maximum temperature at the  $t_c$  point (see "Operating Life") must be observed (measured in accordance with EN 60598-1). 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.
- The photobiological safety of the LED modules is classified into risk groups in accordance with EN 62471: 2008 and IEC TR 62778: risk group 1

### Applied Standards

- EN 62031  
LED modules for general lighting – Safety specifications
- EN 62471  
Photobiological safety of lamps and lamp systems
- EN 55015  
Radio disturbance emissions
- EN 61000-3-2  
Limits for harmonic emissions
- EN 61547  
Immunity requirements

### 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](http://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.

- Vossloh-Schwabe DimONE 186607
- Vossloh-Schwabe DimONE Bluetooth® 186608
- Vossloh-Schwabe Dimmer 250 W 554591
- Vossloh-Schwabe Dimmer 500 W 554592
- Jung 225TDE Insta 51040
- Gira 030700 = Insta
- Berker 2874
- Berker 286710 Insta 5190
- Busch Jäger 6513 U-102
- Busch Jäger 6519U
- Sygonix 33595A
- Merten MEG5136-0000
- LeGrand ADW-ETL4-420VA
- Hager WUD82 + WYA920
- Merten 577899 + 570419
- Gira 2262 Anschn.
- Jung 225 NVDE Anschn.
- Berker 85421200 leading edge Anf. 2013 / equiv. Hager Anf. 2013 both Touch
- Sygonix 33596V leading edge
- Sygonix 33594C leading edge
- Sygonix 33594R leading edge
- Merten MEG5170-0300 + 343519
- Eltako EUD61NPN univ.
- Eltako EUD61M-UC univ.
- Eltako EUD61NP univ.
- Hager EVN002 univ.
- Hager EVN004 univ.
- Berker 16701 univ.
- Jung UD1255REG univ.
- Busch Jäger 6583 univ.
- Eltako EUD12D univ. / Eltako EUD12F univ. / Eltako EUD12Z univ.
- Eltako EUD12Z univ.

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