



- (1) **EU-Type Examination Certificate**
- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**
- (3) Certificate number: **SEV 22 ATEX 0584 X**
- (4) Product: Explosion-protected Lighting Fixture, Type: VLL\*\*\*\*\*
- (5) Manufacturer: Cooper Electric (Changzhou)Co.,Ltd.
- (6) Address: No.189 Liuyanghe Road, Xinbei District, Changzhou, 213031, Jiangsu, China
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in confidential report no 21CH-01442.X01
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN IEC 60079-0:2018**  
**EN 60079-1:2014**  
**EN 60079-7:2015**  
**EN IEC 60079-7:2015/A1:2018**  
**EN 60079-11:2012**  
**EN 60079-18:2015+A1:2017**  
**EN 60079-31:2014**

- Except in respect of those requirements listed at item 18 of the schedule.
- (10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:



**See Appendix: Marking**

**Eurofins Electric & Electronic Product Testing AG**  
**Notified Body ATEX**

Martin Plüss  
Product Certification

(13)

## Appendix

(14)

EU-Type Examination Certificate no. SEV 22 ATEX 0584 X

(15) **Description of product**

VLL series of luminaires are designed mainly as per Ex eb and Ex tb concepts, it is suitable for use in hazardous location classified as Zone 1, Zone 2, Zone 21, Zone 22. The Ex marking for the final product may change due to the different components installed inside.

The luminaire consists of main body housing assembly and plastic cover assembly and buckles to fix together.

There are certified drivers, certified LED modules, reflector, certified terminal blocks and certified safety switches mounted inside.

There are two sizes of the luminaire, small size for 3L type and another size is for 5L & 7L type.

The LED module is fixed to reflector, 3L type has one LED module, and 5L & 7L type have two LED modules.

There will have two certified terminal blocks for through wiring.


Ex d Safety switch is optional, there could be none, one or two safety switches options.

For emergency type, one inverter and battery and terminal will be added.


There are two or four entries of each luminaire. All entries shall be sealed with certified glands or plugs or breather to maintain the degree of protection.

### Marking:


Normal version with safety switch:

 II 2 G Ex db eb mb IIC T6...T5 Gb  
 II 2 D Ex tb IIIC T80°C Db


Normal version without safety switch:

 II 2 G Ex eb mb IIC T6...T5 Gb  
 II 2 D Ex tb IIIC T80°C Db

Emergency version with safety switch:

 II 2 G Ex db eb ib mb IIC T6...T5 Gb  
 II 2 D Ex tb IIIC T80°C Db

Emergency version without safety switch:

 II 2 G Ex eb ib mb IIC T6...T5 Gb  
 II 2 D Ex tb IIIC T80°C Db

### Rating:

100~240 V AC 50/60 Hz; 108~250 V DC  
(with Driver IECEx NEP 19.0001U )

100~277 V AC 50/60 Hz; 125~300 V DC  
(with Driver IECEx TPS 21.0024U or Driver IECEx TPS 21.0023U AND without safety switch)

100~250 V AC 50/60 Hz; 125~250 V DC  
(with Driver IECEx TPS 21.0024U or Driver IECEx TPS 21.0023U AND with safety switch)

Classification of installation and use: stationary

Ingress protection: IP66

Rated ambient temperature range (°C): -40 °C ~+40 °C / 55 °C for Normal version  
-25 °C ~+40 °C / 50 °C for EM version



**Part number code:**

The complete fixture catalog number is as follows:

VLL	-U	-5L	-57	-EM1	-1/6-220	-N
(1)	(2)	(3)	(4)	(5)	(6)	(7)

- (1) VLL = Zone 1 GRP Liner LED
- (2) Default = 100-240 V AC 50/60 Hz; 108-250 V DC  
 U = Universal AC 100-277 V AC 50/60 Hz; 125-300 V DC (W/O Safety Switch)  
 = Universal 100-250 V AC 50/60 Hz; 125-250 V DC (With Safety Switch);
- (3) 3L = 3000 Lm;  
 5L = 5000 Lm;  
 7L = 7000 Lm;
- (4) 30 = 3000 K;  
 40 = 4000 K;  
 50 = 5000 K;  
 57 = 5700 K;
- (5) Blank = Non-Emergency;  
 EM1 = 25% output 1.5 h;  
 EM2 = 25% output 3.0 h;
- (6) 1/6-125 = Single-ended 2xM25;  
 2/6-225 = Through wiring 2xM25;  
 1/6-120 = Single-ended 2xM20;  
 2/6-220 = Through wiring 2xM20;
- (7) Default = W/ Safety Switch  
 N = W/O Safety Switch

The following tables are the detail parameters for different models :

Catalog No.	System Power	Driver		INVERTOR		LED module	Safety switch	BATTERY	LED Qty	Gas		Dust (°C)
		Input	Output	Input	Output					-40°C-40°C	-40°C-55°C	55°C
VLL-3L-**-***	25W	ECHD30C300 (IECEX NEP 19.0001U)		N/A		IECEX NEP 21.0014U	IECEX CQM 16.0018U	N/A	52	T6	T5	80
VLL-5L-**-***	50W	ECHD60C600 (IECEX NEP 19.0001U)		N/A						T6	T5	80
VLL-7L-**-***	58W	ECHD60C600 (IECEX NEP 19.0001U)		N/A						T6	T5	80
VLL-3L-**-EM-***	29W	ECHD30C300 (IECEX NEP 19.0001U)		ECHCI30/075-S (IECEX NEP 19.0002U)				9.6V 3Ah Ni-Cd	52	T6	T5	80
VLL-5L-**-EM-***	57W	ECHD60C600 (IECEX NEP 19.0001U)		ECHCI60/150-S (IECEX NEP 19.0002U)				9.6V 3Ah Ni-Cd/ 9.6V 6Ah Ni-Cd	104	T6	T5	80
VLL-7L-**-EM-***	63W	ECHD60C600 (IECEX NEP 19.0001U)		ECHCI60/150-S (IECEX NEP 19.0002U)				9.6V 3Ah Ni-Cd/ 9.6V 6Ah Ni-Cd	120	T6	T5	80



Catalog No.	System Power	Driver			LED module	Safety switch	LED Qty	Gas		Dust (°C)				
								-40°C~40°C	-40°C~55°C	55°C				
VLL-U-3L-**-***-*	25W	MU025HyAQ_MB/z (IECEX TPS 21.0023U)			IECEX NEP 21.0014U	IECEX CQM 16.0018U	40	T6	T5	80				
		Input 100-277Vac 50/60Hz, 125-300Vdc	Output 700mA 18-48Vdc	100% of rated output load ▲T=2.2										
VLL-U-5L-**-***-*	48W	MU060HyAQ_MB/z (IECEX TPS 21.0024U)					IECEX NEP 21.0014U	IECEX CQM 16.0018U	80	T6	T5	80		
		Input 100-277Vac 50/60Hz, 125-300Vdc	Output 24-86Vdc	80% of rated output load ▲T=11.16										
VLL-U-7L-**-***-*	58W	MU060HyAQ_MB/z (IECEX TPS 21.0024U)							IECEX NEP 21.0014U	IECEX CQM 16.0018U	104	T6	T5	80
		Input 100-277Vac 50/60Hz, 125-300Vdc	Output 24-86Vdc	90% of rated output load ▲T=8.72										

(16) **Report number** 21CH-01442.X01

(17) **“Special conditions for safe use” / “Schedule of limitations”**

1. Do not open when an explosive atmosphere is present.
2. Potential electrostatic charging hazard see instructions.
3. Do not transport through a hazardous area
4. Replacement of the battery can be done only by the manufacturer staff or the persons on behalf of the manufacturer
5. Proper separately certified cable glands or plugs or breather complying with EN IEC 60079-0, EN 60079-7, EN 60079-31, should be applied during the installation.

(18) **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

(19) **Drawings and Documents**

See test report “Manufacturer’s Documents”

