**CEAG Products** Explosion protected luminaires

# CROUSE-HINDS SERIES



# RLF LED A 600 (N) / 1200 (N) Explosion-protected LED-recessed ceiling luminaire for Zone 1, 2, 21 and 22





# Explosion-protected recessed ceiling LED-light fittings in compact metal design

RLF LED A 600, RLF LED A 1200 and self-contained emergency luminaire RLF LED A 600 N, RLF LED A 1200 N (Zone 1, 2, 21, 22)

## The explosion-protected lighting concept for recessed ceiling light fittings.

The new Ex recessed-ceiling light fittings RLF .. LED A are especially used for spraying cabinets and paint shops for installation in ceilings where smooth and flush surfaces are important. The glass pane, which is installed with a metal hinge, allows the use of cleaning solvents, if necessary, in order to remove easily spray mist and paintbrushes. Similar requirements are also encountered in the pharmaceutical and chemical industries as well as in technology labs, where simple cleaning and smooth design are essential.

# **Designed for easy installation**

The housing comprises whitepainted steel sheet with an optional cover frame for ceiling mounting. In addition, it can also be fixed by means of two M8 drilled holes on the top of the housing. For an external PE-connection two screw terminals up to 6 mm<sup>2</sup> are available.



made of 5 mm thick safety glass is fixed with 2 resp. 3 captive screws and has inside hinges. The EPDM sealing ensures the high degree of protection IP65.

## Long-term safety

Thanks to its large input voltage range the electronic driver (110- 254 A AC / 220- 250 V DC) can be used internationally. Due to the low self-heating, ambient temperatures up to +60 °C are possible.

# Versatile light

Depending on the application, three luminous flux versions are available in efficient LED technology (2500/5000/10000 lm) in various sizes. Through their variety even demanding lighting tasks can be faced. In addition, the light colour 6000K ensures an illumination similar to daylight, which is a high priority, for example, in paint shops.

# **Easy to install**

The double-sided through-wiring in combination with the generous connecting space provides a cost-saving installation.



Using optional mounting brackets the luminaires can be installed adjustable on walls or ceilings

## If you need a reliable and decentralised emergency lighting

The self-contained emergency light fitting RLF LED A... N ensures decentralised emergency lighting, independent of central systems. These luminaires offers in particular significant cost advantages, particularly in largescale installations.

The self-contained emergency light fitting with integrated battery allows an autonomous emergency lighting with 1.5 h or 3 h rated operating time.



# Features

- Universal electronic driver for 110 254 V AC / 220 250 V DC
- Various lumen packages up to 13447 lm in different sizes available
- Suitable for high ambient temperatures up to +60 °C
- Flush installation, especially for spraying cabinets and paint shops with optional mounting bracket
- Toughened safety glass
- With self-contained battery unit (RLF 250 LED...N)
- Suitable for B15 fire resistance ceilings

# **Ordering details**

	Туре	Content	Luminous flux	Emergen lighting duration	cyCable gland/ thread	Screw plugs	Order No.
	RLF LED A 600						
	RLF LED A 600 3L	2/5-2K	3373 lm		1 x M25, Plastic cable gland	1 x M25	1 2286 111 103
	RLF LED A 600 3L	2/5-2M <sup>1)</sup>	3373 lm		2 x M20, Metal thread	1 x M20	1 2286 111 111
	RLF LED A 600 7L	2/5-2K	6664 lm		1 x M25, Plastic cable gland	1 x M25	1 2286 141 10
I	RLF LED A 600 7L	2/5-2M <sup>1)</sup>	6664 lm		2 x M20, Metal thread	1 x M20	1 2286 141 11
j	RLF LED A 1200					·	
	RLF LED A 1200 7L	2/5-2K	6742 lm		1 x M25, Plastic cable gland	1 x M25	1 2286 241 10
I	RLF LED A 1200 7L	2/5-2M <sup>1)</sup>	6742 lm		2 x M20, Metal thread	1 x M20	1 2286 241 11
F	RLF LED A 1200 13L	2/5-2K	13447 lm		1 x M20, Plastic cable gland	1 x M25	1 2286 271 103
F	RLF LED A 1200 13L	2/5-2M <sup>1)</sup>	13447 lm		2 x M20, Metal thread	1 x M20	1 2286 271 11
F	RLF LED A 600 N (se	lf-contain	ed emerge	ncy light	t fitting)		
F	RLF LED A 600 N 3L	2/4-2K	3373 lm	1.5 h	1 x M25, plastic cable gland	1 x M25	1 2288 111 103
F	RLF LED A 600 N 3L	2/5-2M <sup>1)</sup>	3373 lm	1.5 h	2 x M20, Metal thread	1 x M20	1 2288 111 111
F	RLF LED A 600 N 3L	2/5-2K	3373 lm	3 h	1 x M25, Plastic cable gland	1 x M25	1 2289 111 103
ŀ	RLF LED A 600 N 3L	2/5-2M <sup>1)</sup>	3373 lm	3 h	2 x M20, Metal thread	1 x M20	1 2289 111 111
F	RLF LED A 600 N 7L	2/5-2K	6664 lm	1.5 h	1 x M25, Plastic cable gland	1 x M25	1 2288 141 10
ŀ	RLF LED A 600 N 7L	2/5-2M <sup>1)</sup>	6664 lm	1.5 h	2 x M20, Metal thread	1 x M20	1 2288 141 11
F	RLF LED A 600 N 7L	2/5-2K	6664 lm	3 h	1 x M25, Plastic cable gland	1 x M25	1 2289 141 10
Ī	RLF LED A 600 N 7L	2/5-2M <sup>1)</sup>	6664 lm	3 h	2 x M20, Metal thread	1 x M20	1 2289 141 111
Î	RLF LED A 1200 N (s	elf-contai	ined emerg	ency lig	ht fitting)		
Ì	RLF LED A 1200 N 7L	2/5-2K	6742 lm	1.5 h	1 x M25, Plastic cable gland	1 x M25	1 2288 241 10
I	RLF LED A 1200 N 7L	2/5-2M <sup>1)</sup>	6742 lm	1.5 h	2 x M20, Metal thread	1 x M20	1 2288 241 111
ſ	RLF LED A 1200 N 7L	2/5-2K	6742 lm	3 h	1 x M25, Plastic cable gland	1 x M25	1 2289 241 10
	RLF LED A 1200 N 7L	2/5-2M <sup>1)</sup>	6742 lm	3 h	2 x M20, Metal thread	1 x M20	1 2289 241 11
	RLF LED A 1200 N 10L	2/5-2K	13447 lm	1.5 h	1 x M25, Plastic cable gland	1 x M25	1 2288 271 10
	RLF LED A 1200 N 13L	2/5-2M <sup>1)</sup>	13447 lm	1.5 h	2 x M20, Metal thread	1 x M20	1 2288 271 11
	RLF LED A 1200 N 13L	2/5-2K	13447 lm	3 h	1 x M25, Plastic cable gland	1 x M25	1 2289 271 10

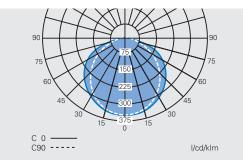
Scope of delivery with LED and without fixing accessories Metal cable glands see catalogue part 2: 2.3.12 ff

# Accessories / Polar curve / Dimension drawing RLF LED A (N)

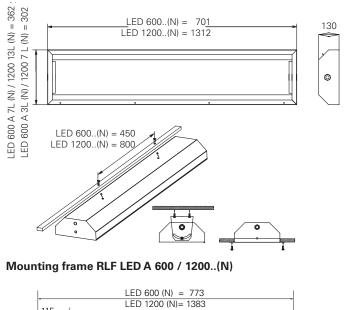
Accessories

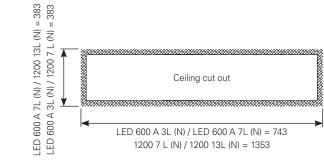
Туре	Application	Order No.
Mounting frame for ceiling mounting	for RLF LED A 600 / 600 N 3L	3 2283 000 001
 Mounting frame for ceiling mounting	for RLF LED A 600 / 600 N 7L	3 2283 000 002
Mounting frame for ceiling mounting	for RLF LED A 1200 / 1200 N 3L	3 2283 000 003
Mounting frame for ceiling mounting	for RLF LED A 1200 / 1200 N 13	L 3 2283 000 004
Set of wall bracket adjustable (2 pcs.)	for RLF LED A	3 2283 000 007

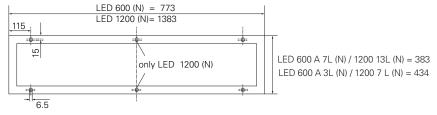
Polar curve RLF... LED A



# RLF LED A 600 / 1200..(N)







Dimensions in mm

4

# **Technical data** RLF LED A 600 / RLF LED A 1200





# **Technical data**

	RLF LED A 600 3L / 7L	RLF LED A 1200 7L / 13L
EU-Type Examination Certificate	FTZÚ 17 ATEX 0002X	FTZÚ 17 ATEX 0002X
Marking accd. to 2014/34/EU	<ul> <li>II 2 G Ex eb mb op is IIC T4 Gb</li> <li>II 2 D Ex tb IIIC T67°C Db</li> </ul>	ⓑ II 2 G Ex eb mb op is IIC T4 Gb ⓑ II 2 D Ex tb IIIC T67℃ Db
Permissible ambient temperature	-20 °C up to +60 °C	-20 °C up to +55 °C
Rated voltage	110- 254 V AC / 220- 250 V DC	110- 254 V AC / 220- 250 V DC
Rated current	0.13 A / 0.26 A at 230 V	0.24 A / 0.48 A at 230 V
Frequency	50- 60 Hz	50- 60 Hz
Power factor cos φ	≥ 0.95	≥ 0.95
Circuit	electronic LED-driver	electronic LED-driver
Protection class	1	l
Lamp / Illuminant	LED module 1 x 25 W / 2 x 25 W	LED module 1 x 50 W / 2 x 50 W
Rated luminous flux of the luminaire	3373 lm (3L) / 6664 lm (7L)	6742 lm (7L) / 13447 lm (13L)
Light colour/ CRI	6000 K / R <sub>a</sub> >70 <sup>2)</sup>	6000 K / $R_a > 70^{-21}$
Dimensions (L x W x H)	701 x 302 x 130 mm / 701 x 362 x 130 mm	1312 x 302 x 130 mm / 1312 x 362 x 130 mm
Connecting terminals	L1, L2, L3, N, PE; max. 2 x 2.5 mm <sup>2</sup> twin-ended through-wiring	L1, L2, L3, N, PE; max. 2 x 2.5 mm² twin-ended through-wiring
Enclosure colour	white RAL 9010	white RAL 9010
Enclosure material	painted steel sheet <sup>3)</sup>	painted steel sheet <sup>3)</sup>
Weight	9.5 kg (3L) / 11.9 kg (7L)	15.6 kg (7L)/ 18.4 kg (13L)
Cable glands / gland plates / enclosure drilling	Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>1)</sup>	Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>1)</sup>
Degree of protection accd. to EN 60529	IP65	IP65
Protective cover / protective bowl	single-safety glass pane of 5 mm thick	single-safety glass pane of 5 mm thick

1) with dustcover if entry/thread is not closed

2) 4000 K on request

3) polished stainless steel 304 (1.4301 (Inox) on request





# **Technical data**

	RLF LED 600 N 3L / 7L	RLF LED 1200 N 7L / 13L	
EU-Type Examination Certificate	FTZÚ 17 ATEX 0002X	FTZÚ 17 ATEX 0002X	
Marking accd. to 2014/34/EU	<ul> <li>II 2 G Ex eb mb op is IICT4 Gb</li> <li>II 2 D Ex tb IIICT67°C Db</li> </ul>	ll 2 G Ex eb mb op is IIC T4 Gb ⊮ II 2 D Ex tb IIIC T67°C Db	
Permissible ambient temperature	0 °C up to +40 °C	0 °C up to +35 °C	
Rated voltage	110- 254 V AC / 220- 250 V DC	110- 254 V AC / 220- 250 V DC	
Rated current	0.14 A / 0.26 A at 230 V	0.25 A / 0.49 A at 230 V	
Frequency	50- 60 Hz	50- 60 Hz	
Power factor cos φ	≥ 0.95	≥ 0.95	
Circuit	electronic LED-driver	electronic LED-driver	
Protection class	1	1	
Lamp / Illuminant	LED module 1 x 30 W / 2 x 30 W	LED module 1 x 50 W / 2 x 50 W	
Rated luminous flux of the luminaire	3373 lm (3L) / 6664 lm (7L)	6742 lm (7L) / 13447 lm (13L)	
Light colour/ CRI	6000 K / $R_a > 70^{-2}$	6000 K / $R_a > 70^{-20}$	
luminous flux in emergecy mode 1.5 h, one LED module 3 h, one LED module	RLF LED A 600 N 1.5h 3L – 515lm RLF LED A 600 N 3.0h 3L – 383lm	RLF LED A 1200 N 1.5h 7L – 829lm RLF LED A 1200 N 3.0h 7L- 447lm	
	RLF LED A 600 N 1.5h 7L- 746lm RLF LED A 600 N 3.0h 7L- 406lm	RLF LED A 1200 N 1.5h 13L – 829lm RLF LED A 1200 N 3.0h 13L – 455lm	
Emergency lighting duration	1.5 h or 3 h	1.5 h or 3 h	
Dimensions (L $\times$ W $\times$ H)	701 x 302 x 130 mm / 701 x 362 x 130 mm	1312 x 302 x 130 mm / 1312 x 362 x 130 mm	
Connecting terminals	L, L1,L2, L3, N, PE; max. 2 x 2.5 mm² twin-ended through-wiring	L, L1,L2, L3, N, PE; max. 2 x 2.5 mm <sup>2</sup> twin-ended through-wiring	
Enclosure colour	white RAL 9010	white RAL 9010	
Enclosure material	painted steel sheet <sup>3)</sup>	painted steel sheet <sup>3)</sup>	
Weight	11.50 kg 3L (1.5h)/ 12.10 kg 7L (3h) 13.60 kg 7L (1.5h)/ 14.80 kg 13L (3h)	16.40 kg 7L (1.5h)/ 18.40 kg 7L (3h) 18.50 kg 13L (1.5h)/ 19.10 kg 13L (3h)	
Cable glands / gland plates / enclosure drilling	Ex-e cable glands M25 x 1.5 (plastic) , option: M20 x 1.5 metal thread $^{\mbox{\tiny 1)}}$	Ex-e cable glands M25 x 1.5 (plastic) , option: M20 x 1.5 metal thread $^{\rm 1)}$	
Degree of protection accd. to EN 60529	IP65	IP65	
Protective cover / protective bowl	single-safety glass pane of 5 mm thick	single-safety glass pane of 5 mm thick	

1) with dustcover if entry/thread is not closed

2) 4000 K on request

3) polished stainless steel 304 (1.4301 (Inox) on request

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