CC ComfortLine NFC S MidNight

COMFORTLINE NFC S MIDNIGHT

187468, 187469, 187470, 187471, 187472, 187473, 187568

Typical Applications
Built-in in compact luminaires
- Street lighting
- Industrial lighting

NFC

ComfortLine NFC S MidNight

- **ADJUSTABLE OUTPUT CURRENT (AOC) VIA NFC**
- **MIDNIGHT FUNCTION**
- **VERY LOW RIPPLE CURRENT: < 3%**
- **SURGE PROTECTION: UP TO 10 KV**
- **LONG SERVICE LIFE: UP TO 100,000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**

MidNight™ Multi-Step Dimming

5 YEARS GUARANTEE

LIGHTING SOLUTIONS

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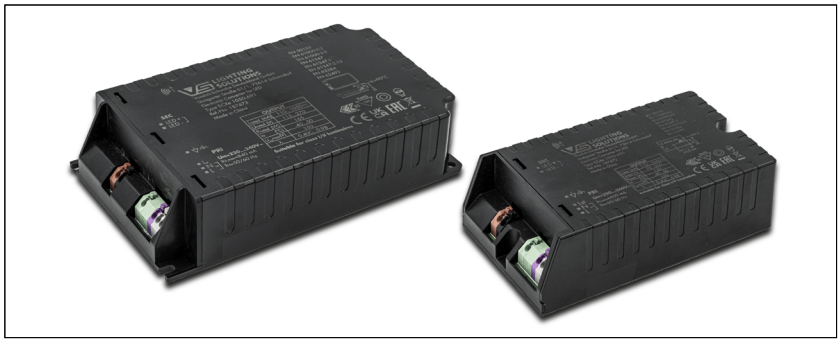
ComfortLine NFC S MidNight



IP20 SELV 120 0% NO LOAD OPERATION CLO

187468, 187469, 187470 — 187471, 187472, 187473

Service Lifetime 100 000 hours | Guarantee 5 years | MidNight Multi-Step Dimming

Product features
- Compact casing shape

Functions
- Selectable current output via NFC interface
- Contactless programmable via NFC interface
  - Dimming via MidNight function
  - Dimming via Control phase function
  - Constant Lumen Output (CLO)

Electrical features
- Mains voltage: 220–240 V AC
- Mains frequency: 50–60 Hz
- Push-in terminals
  Input (L, N, PE/Equi)/Control Phase: 0.75–1.5 mm²
  Output: 0.5–1.5 mm²
- Power factor at full load: > 0.95
- Open circuit voltage ($U_{max.}$):
  70 V (187468), 100 V (187469), 120 V (187470)
  Max. working voltage (U_{OUT}):
  140 V (187471), 260 V (187472),
  300 V (187473, 187568)
- Secondary side switching of LED modules is not allowed.
- Failure rate: ≤ 10%

Dimming
- MidNight function
- Dimming range: 10 to 100%

Safety features
- Protection against transient main peaks up to 6 kV (between L and N) and up to 10 kV (between L/N and PE)
- Electronic short-circuit protection (SCP)
- Overtemperature protection (OTP)
- Over-voltage protection (input & output/"no load") (OVP)
- Under-voltage protection (UVP)
- Over--power protection (OPP)
- Degree of protection: IP20
- Protection class I / II

Applied standards
- EN 61000-3-2(3)
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN 62384
- EN 62493
- EN 55015

Dimensions

Ref. No.	Casing	Length mm	Width mm	Height mm
187468	K72.2	132.5	77,4	40
187469				
187470				
187471				
187472				
187473	K75.2	171	101	41
187568				

Dimming
MidNight Multi-Step Dimming

Current adjustment
NFC

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.

Packaging units

Ref. No.	Packaging unit Pieces per box	Boxes per pallet	Weight g
187468	20	36	250
187469	20	36	500
187470	20	36	500
187471	20	36	500
187472	20	36	500
187473	16	40	1000
187568	16	40	1000

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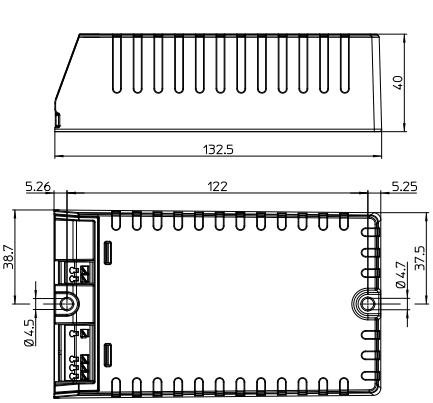
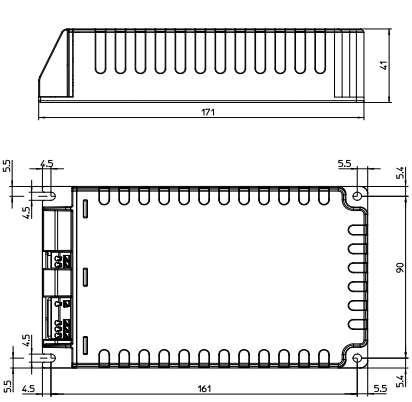
Product drawings and photos

K72.2



K72.2 – 187468, 187469, 187470, 187471, 187472

K75.2



K75.2 – 187473, 187568

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Electrical characteristics

Max. output W	Type	**Ref. No.**	Nominal input voltage range (50–60 Hz) V AC	Mains current mA	Inrush current A / µs	Current output DC mA (± 5%)	Factory settings mA	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
26.6	ECXe 1050.686	**187468**	176–305	160	22 / 239	110–1050	700	20–48	4	87	≤ 3
40	ECXe 1050.687	**187469**	176–305	220	22 / 242	110–1050	700	28–60	3	89	≤ 3
60	ECXe 1050.688	**187470**	176–305	320	23 / 231	110–1050	700	38–90	3	90	≤ 3
80.5	ECXe 1050.689	**187471**	176–305	420	40 / 366	110–1050	700	35–120	3	91.5	≤ 3
120	ECXe 1050.690	**187472**	176–305	600	40 / 378	110–1050	700	75–220	3	92	≤ 3
165	ECXe 1050.691	**187473**	176–305	840	40 / 613	110–1050	700	115–270	3	93	≤ 3
200	ECXe 1050.731	**187568**	176–305	1022	39 / 634	110–1050	700	143–300	7	94	≤ 10

Maximum ratings

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

Ref. No.	Ambient temperature range		Operation humidity range		Storage temperature range		Storage humidity range		Max. operation temperature at t_c point	Degree of protection
	°C min.	°C max.	% min.	% max.	°C min.	°C max.	% min.	% max.	°C	
187468	–40	+55	10	80	–40	+85	5	85	+85 (tc,life)* | +85 (tc,max.)*	IP20
187469									+85 (tc,life)* | +85 (tc,max.)*	
187470									+85 (tc,life)* | +85 (tc,max.)*	
187471									+85 (tc,life)* | +90 (tc,max.)*	
187472		+50							+85 (tc,life)* | +90 (tc,max.)*	
187473									+85 (tc,life)* | +90 (tc,max.)*	
187568								50	+85 (tc,life)* | +90 (tc,max.)*	

*tc,life: (tc, warranty) | tc,max.: (max. allowed tc temperature)

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 187468			187469			187470			187471			187472			187473, 187568		
All	75 °C	80 °C	85 °C	75 °C	80 °C	85 °C	75 °C	80 °C	85 °C	75 °C	85 °C	90 °C	75 °C	85 °C	90 °C	75 °C	85 °C	90 °C
hrs.	100,000	80,000	50,000	100,000	74,000	50,000	100,000	70,000	50,000	100,000	50,000	45,000	100,000	50,000	38,000	100,000	50,000	38,000

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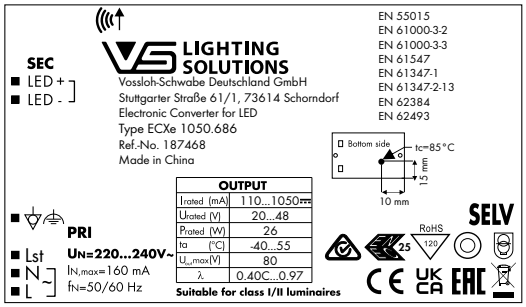
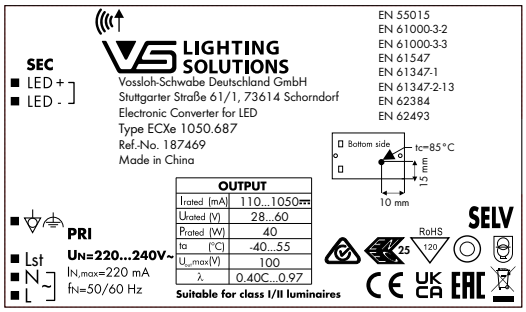
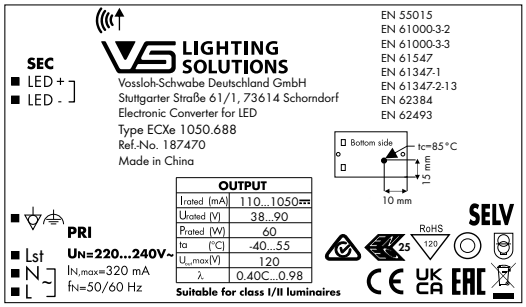
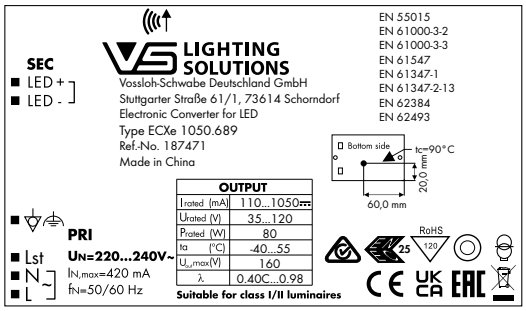
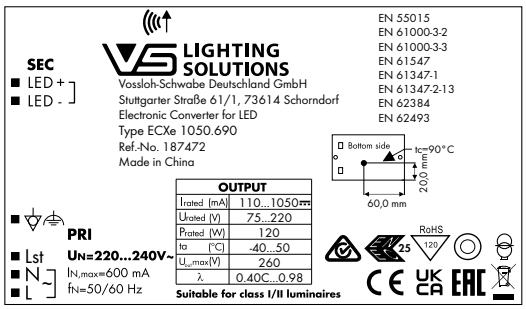
Product labels

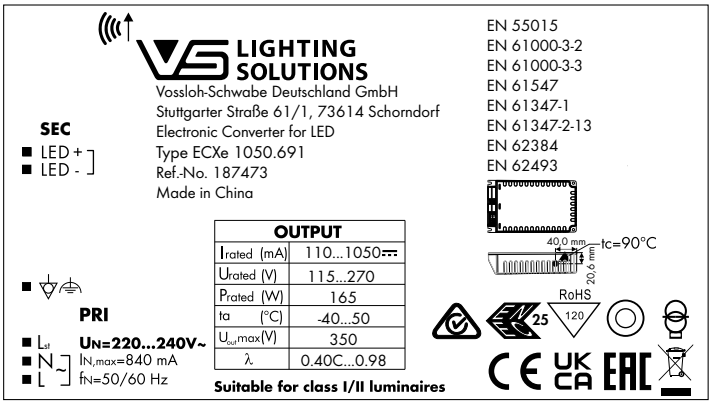


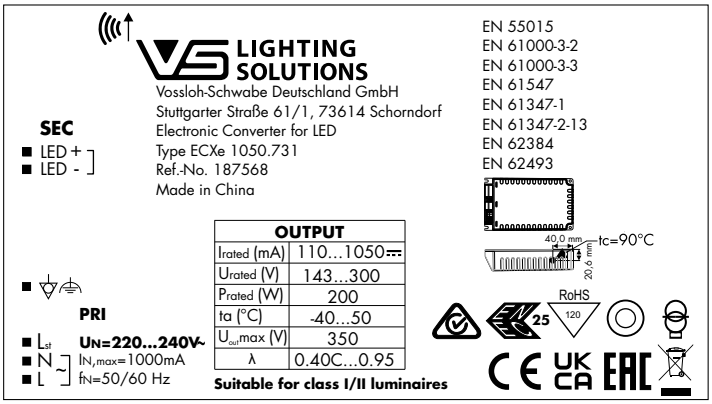












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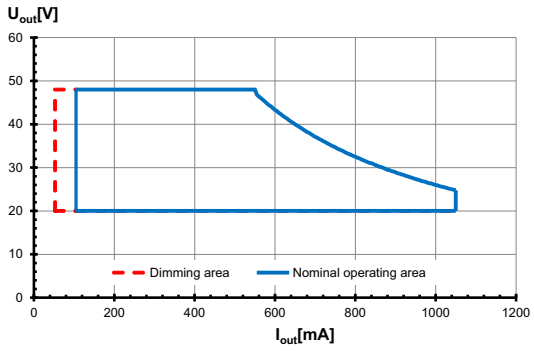
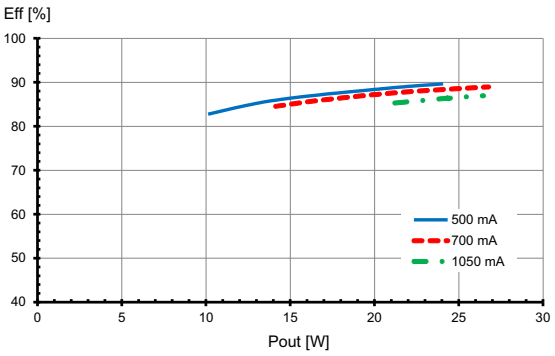
Typ. performance graphs for 187468 / Type ECXe 1050.686

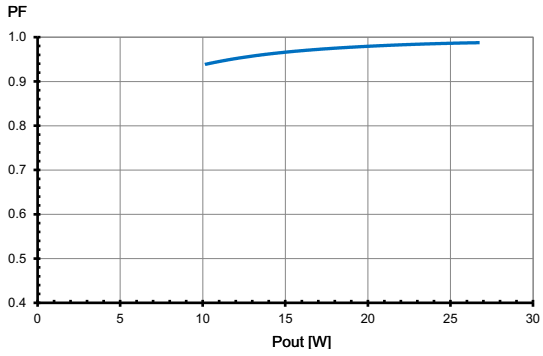
Working area



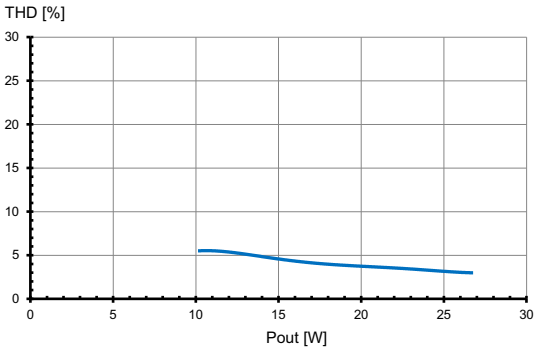
Efficiency



Power factor

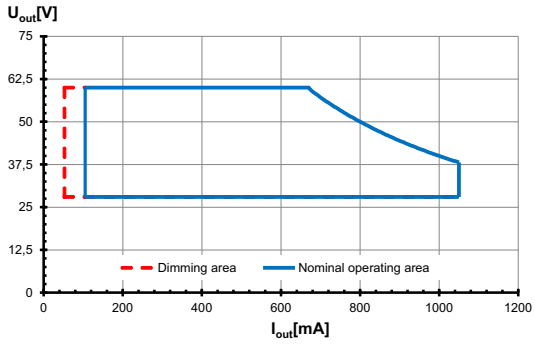


Total harmonic factor (THD)

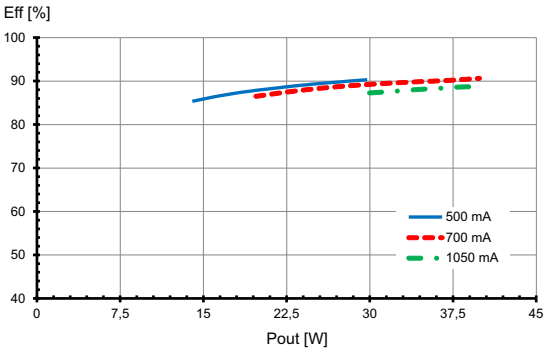


Typ. performance graphs for 187469 / Type ECXe 1050.687

Working area



Efficiency



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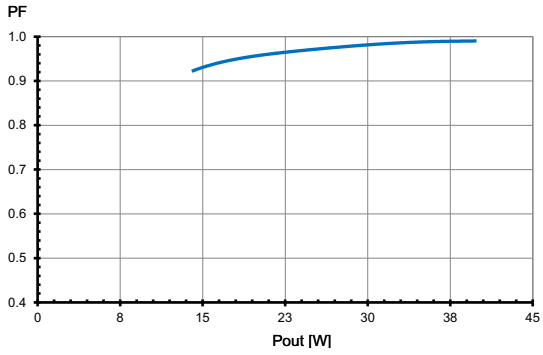
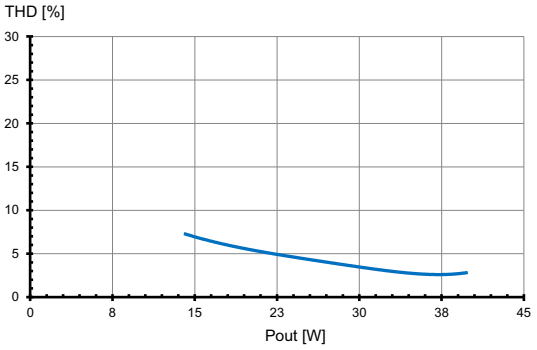


Total harmonic factor (THD)



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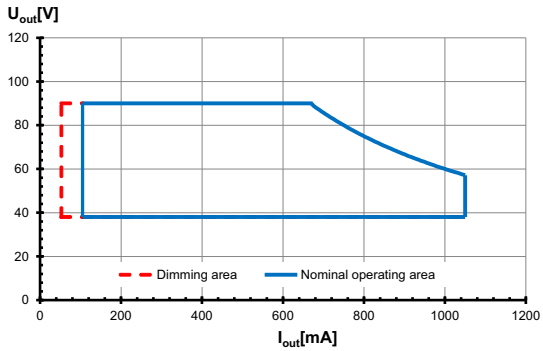
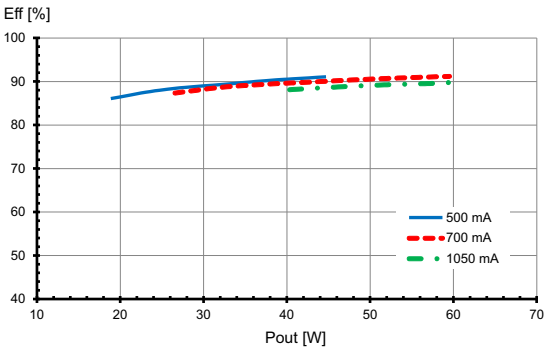
Typ. performance graphs for 187470 / Type ECXe 1050.688

Working area



Efficiency



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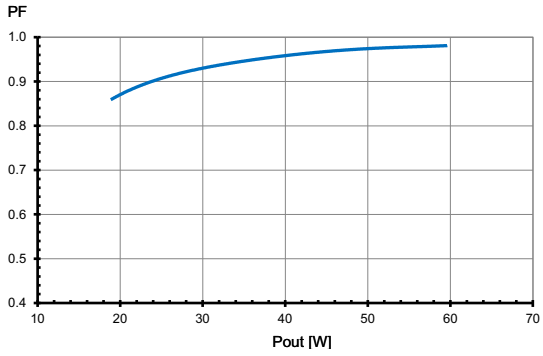

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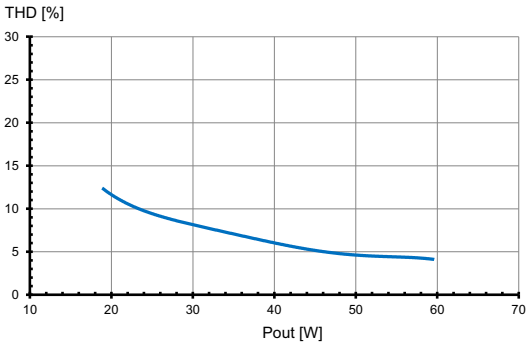
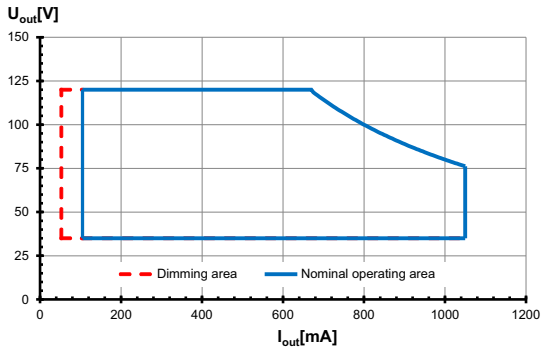


Typ. performance graphs for 187471 / Type ECXe 1050.689

Working area



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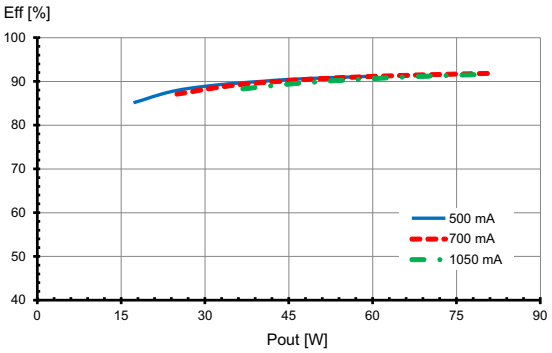
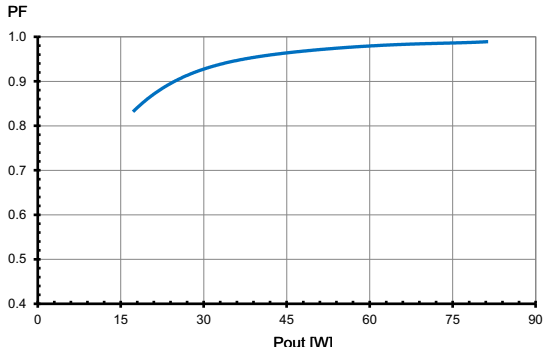
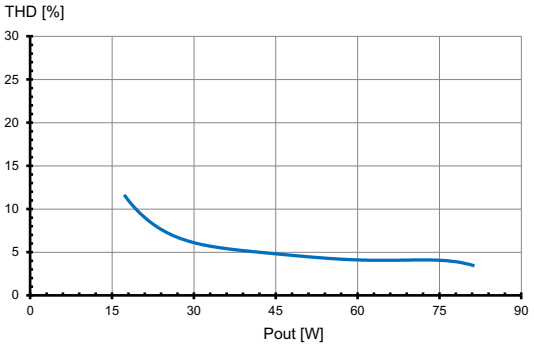


Power factor



Total harmonic factor (THD)



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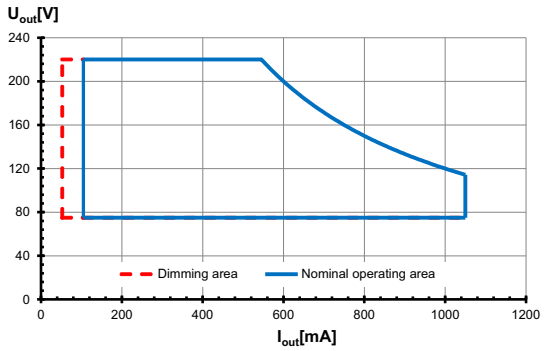
Typ. performance graphs for 187472 / Type ECXe 1050.690

Working area



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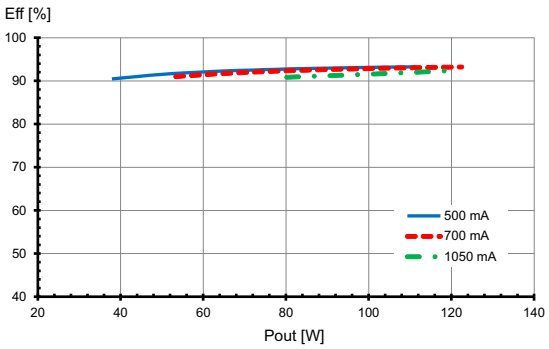
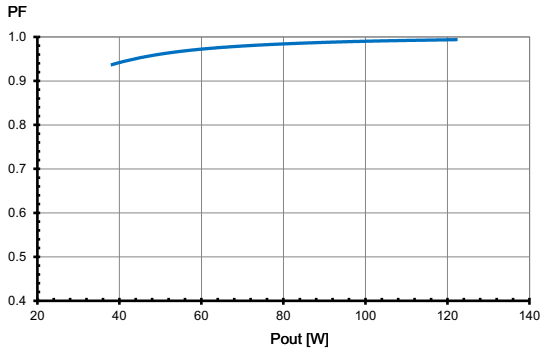
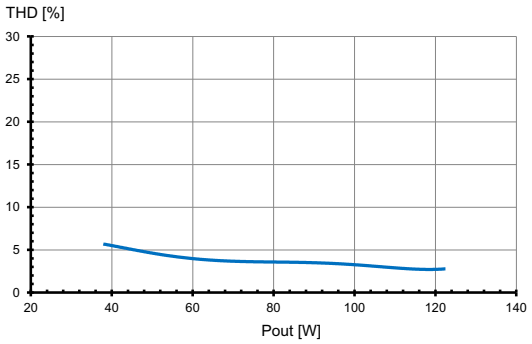


Power factor

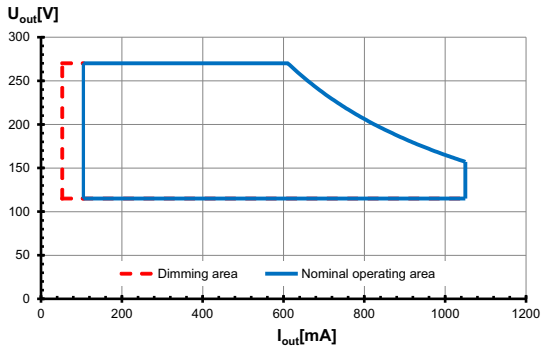


Total harmonic factor (THD)

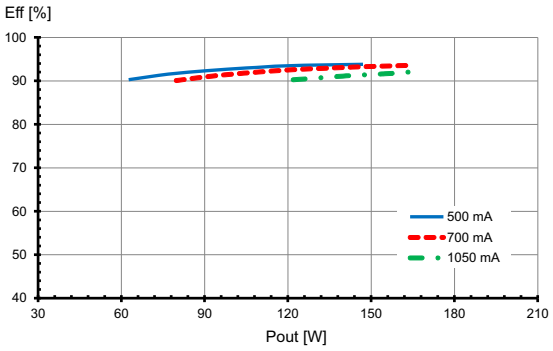


Typ. performance graphs for 187473 / Type ECXe 1050.691

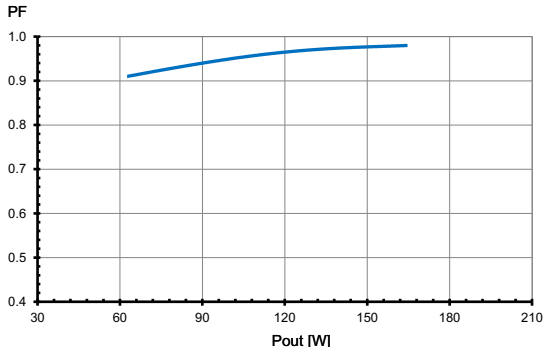
Working area



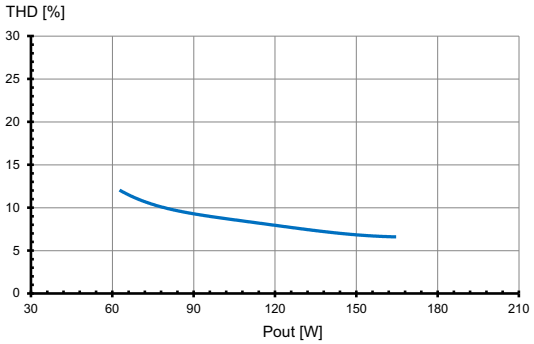
Efficiency



Power factor



Total harmonic factor (THD)



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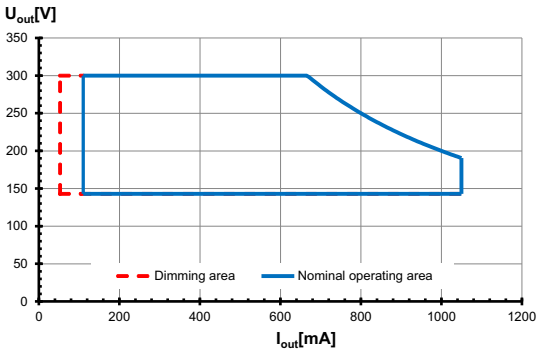
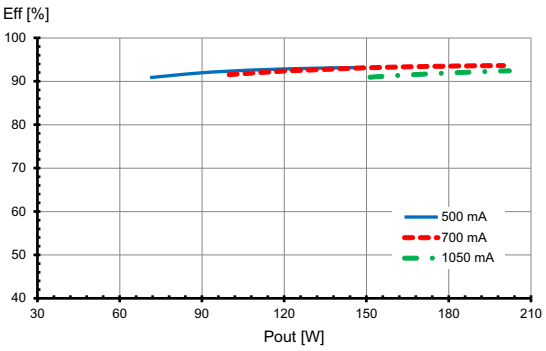
Typ. performance graphs for 187568 / Type ECXe 1050.731

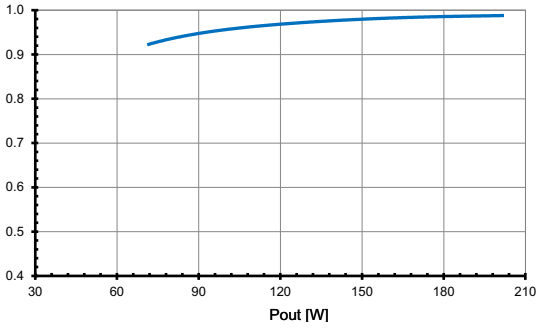
Working area



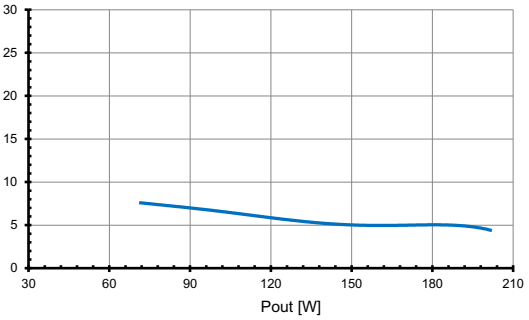
Efficiency



Power factor



Total harmonic factor (THD)



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Safety functions

- Transient mains peaks protection:
  Values are in compliance with EN 61547 (interference immunity).
  Surges between L–N: up to 6 kV
  Surges between L/N–PE: up to 10 kV
- Short-circuit protection: The control gear is protected against permanent short-circuit with automatic restart function.
- Overload protection: The control gears have overload protection. In case of overload the control gear will reduce the output current.
- Overheating: The control gear has overheating protection. In case of overheating the control gear will reduce the output current and shut down.
- No load operation: The control gear is protected against no load operation (open load) and switches off when no load is connected.
- Input over- & undervoltage:
  The control gear is protected against over-voltage or undervoltage comming from mains.
  The undervoltage range covered:

- If any of the above mentioned safety functions will be triggered, disconnect the control gear from the power supply then find and eliminate the cause of the problem.

Output voltage (U_{OUT})

According to EN 61347-1, U_{OUT} indicates which voltage can occur at the output terminals directly or between the output terminals and the PE terminal of the LED driver. This value is given for non-insulated drivers. The used LED module must have an insulation voltage that is at least as high as the specified U_{OUT} voltage of the driver.

Dimming

- Min. output current load: 10 % for Iset ≥ 700 mA
  70 mA for Iset < 700 mA
- Dimming current tolerance: ± 3 % of the adjusted output current

MidNight function

Automatic dimming via an integrated timer (no real-time clock).
Five independent dimming levels and zones can be set using the configurator software.

Constant lumen output (CLO)

The decrease in the luminous flux of an LED module can be compensated over its entire lifetime via a preprogrammed current curve. This not only ensures stable lighting but also saves energy and increases the lifetime of the LEDs.

CC-ComfortLine-NFC-S-MidNight_187468-187469-187470-187471-187472-187473_187568_EN – 10/11 – 07/2026

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Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advices must be observed; non-observance can result in the destruction of the LED drivers, fire and/or other hazards.

Mandatory regulations

- DIN VDE 0100
- EN 60598-1

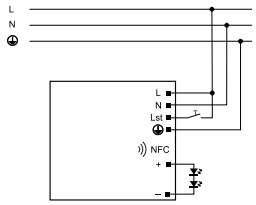
Mechanical mounting

- Mounting position: Built-in: Any position inside a luminaire is allowed
- Mounting location: LED drivers are designed for integration into luminaires or comparable devices. Installation in outdoor luminaires: degree of protection for luminaire with water protection rate ≥ 4 (e.g. IP54 required).
- Degree of protection: IP20
- Clearance: Min. 0.10 m from walls. ceilings and insulation
- Surface: Solid and plane surface for optimum heat dissipation required.
- Heat transfer: If the driver is destined for installation in a luminaire. sufficient heat transfer must be ensured between the driver and the luminaire casing. LED drivers should be mounted with the greatest possible clearance to heat sources. During operation. the temperature measure at the driver's t_c point must not exceed the specified maximum value.
- Fastening: Using M4 screws in the designated holes
- Tightening torque: 0.2 Nm

Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of 0.75–1.5 mm² on input side and 0.5–1.5mm² on output side.
- Stripped length: 8.5–9.5 mm
- Wiring: The mains conductor within the luminaire must be kept short (to reduce the induction of interference). Mains and lamp conductors must be kept separate and if possible should not be laid in parallel to one another.
- Polarity: Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Through-wiring: Is not allowed.
- Secondary load: The sum of forward voltages of LED loads has to be within the tolerances which are mentioned in the table "Electrical Characteristics" in this data sheet.

- Wiring diagram:



Selection of automatic cut-outs for VS LED drivers

- Dimensioning automatic cut-outs
  High transient currents occur when an LED driver is switched on because the capacitors have to load. Ignition of LED modules occurs almost simultaneously. This also causes a simultaneous high demand for power. These high currents when the system is switched on put a strain on the automatic conductor cut-outs. which must be selected and dimensioned to suit.
- Release reaction
  The release reaction of the automatic conductor cut-outs comply with VDE 0641. part 11. for B. C characteristics. The values shown in the following tables are for guidance purposes only and are subject to system-dependent change.
- No. of LED drivers
  The maximum number of VS LED drivers applies to cases where the devices are switched on simultaneously. Specifications apply to single-pole fuses. The number of permissible drivers must be reduced by 20% for multi-pole fuses. The considered circuit impedance equals 400 mΩ (approx. 20 m [2.5 mm²] of conductor from the power supply to the distributor and a further 15 m to the luminaire).

Type	Ref. No.	Automatic cut-out type and possible no. of VS drivers pcs.		
Automatic cut-out type B		B 10 A	B 13 A	B 16 A
ECXe 1050.686	**187468**	15	19	24
ECXe 1050.687	**187469**	15	19	24
ECXe 1050.688	**187470**	15	19	24
ECXe 1050.689	**187471**	5	7	8
ECXe 1050.690	**187472**	5	6	8
ECXe 1050.691	**187473**	3	4	4
ECXe 1050.731	**187568**	3	4	4
Automatic cut-out type C		C 10 A	C 13 A	C 16 A
ECXe 1050.686	**187468**	25	33	40
ECXe 1050.687	**187469**	25	32	40
ECXe 1050.688	**187470**	25	32	40
ECXe 1050.689	**187471**	8	11	14
ECXe 1050.690	**187472**	8	11	13
ECXe 1050.691	**187473**	5	6	8
ECXe 1050.731	**187568**	5	6	8

– To limit capacitive inrush currents the current carrying capacity of each circuit breaker (fuse) can be increased by a factor of 2.5 with the help of our ESB (Ref. No.: 149820, 149821, 149822) inrush current limiters.

– **EU compliance information**
  Hereby, Vossloh-Schwabe Deutschland GmbH declares that the radio equipment type PrimeLine NFC S MidNight is in compliance with Directive 2014/53/EU.
  The full text of the EU declaration of conformity is available at the following internet address: www.vossloh-schwabe.com.

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