

CC COMPACT



EASYLINE SIMPLE FIX MINI SLIM 100 V

187602, 187603, 187673, 187674, 187675

Typical Applications

Built-in in or independent version for

- Shop lighting
- Downlights
- Residential lighting



EasyLine Simple Fix Mini Slim 100 V

- **WIDE INPUT VOLTAGE RANGE: 100-240 V**
- **VERY COMPACT SHAPE**
- **LONG SERVICE LIFE:
UP TO 100.000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



EasyLine Simple Fix Mini Slim 100 V

Product features

- Compact casing shape
- Fixed output current

Electrical features

- Mains voltage: 100–240 V $\pm 10\%$
- Mains frequency: 50–60 Hz
- Push-in terminals: 0.5–1.5 mm²
- Power factor at full load: see table "Electrical characteristics" on page 4
- Max. operation voltage without load (U_{max}): 60 V
- Secondary side switching of LED modules is not allowed.

Safety features

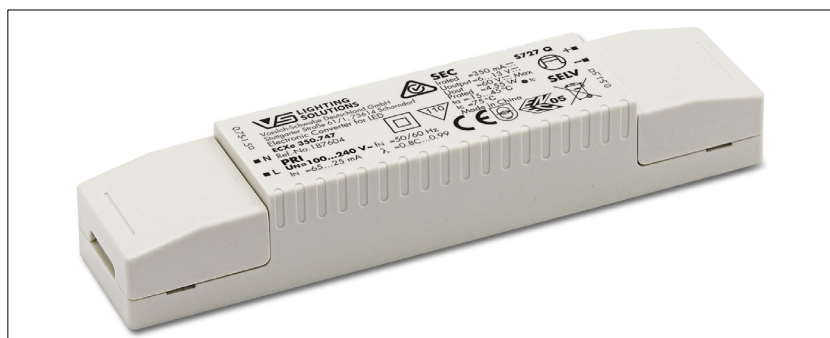
- Protection against transient main peaks between L and N up to 1 kV
- Electronic short-circuit protection
- Overload protection
- Protection against "no load" operation
- Degree of protection: IP20
- Protection class II
- SELV
- SVM: < 0.4
- PstLM: < 1

Packaging units

Ref. No.	Packaging unit		Weight g
	Pieces per box	Boxes per pallet	
187602	50	120	62
187603	50	100	76
187673	50	120	57
187674	50	120	57
187675	50	120	57

Product guarantee

- 5 years for operation at recommended operation temperature (see table for expected service life time on page 4)
- 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.



Dimensions

Ref. No.	Casing	Length a (mm)	Width b (mm)	Height c (mm)
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EasyLine Simple Fix Mini Slim 100 V

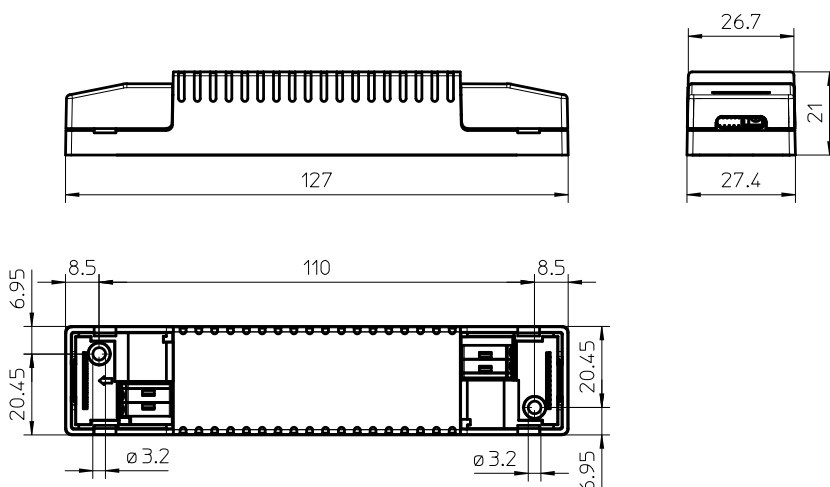
All types	K120	127	27.4	21
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Used standards

- EN 61347-1
- EN 61347-2-13
- EN 62493
- EN 55015
- EN 61547
- EN 61000-3-2
- EN 61000-3-3
- EN 63000



Drawing



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

LED Drivers – EasyLine Simple Fix Mini Slim 100 V

Electrical characteristics

Max. output W	Type	Ref. No.	Voltage 50–60 Hz V	Mains current mA	Inrush current A / μ s	Current output DC mA ($\pm$ 5 %)	Voltage output DC (V)	THD at full load % (230 V)	Efficiency at full load % (230 V)	Ripple 100 Hz %
15	ECXe 350.745	187602	100–240	155 / 70	17.8 / 182	350	16–42	12	88	< 3
21	ECXe 500.746	187603	100–240	225 / 100	21.4 / 218	500	16–42	12	88	< 3
7	ECXe 350.787	187673	100–240	90 / 30	2.8 / 35	350	2–20	9	87	< 3
10	ECXe 500.788	187674	100–240	125 / 45	4.3 / 30	500	2–20	8	87	< 3
14	ECXe 700.789	187675	100–240	180 / 65	5.3 / 35	700	2–20	8	86	< 3

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 °C max.	Degree of protection
	°C min.	°C max.	% min.	% max.	°C min.	°C max.	% min.	% max.		
187673, 187674, 187675	–20	+45	10	90	–40	+85	5	95	+70	IP20
187602	–15								+75	
187603									+85	

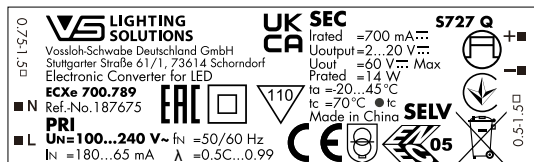
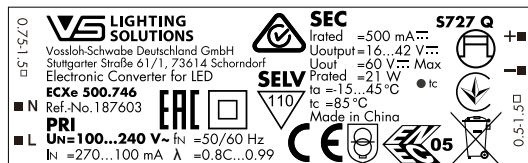
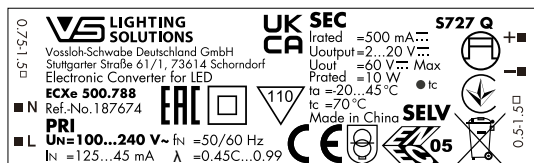
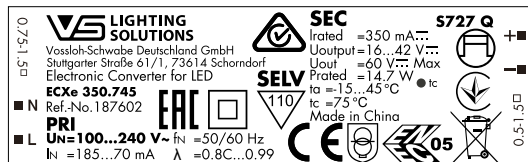
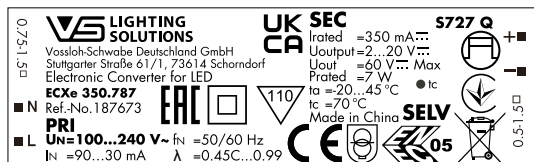
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 187673, 187674, 187675		187603		187602	
all	60 °C*	70 °C	75 °C*	85 °C	65 °C*	75 °C
hrs.	100.000	50.000	100.000	50.000	100.000	50.000

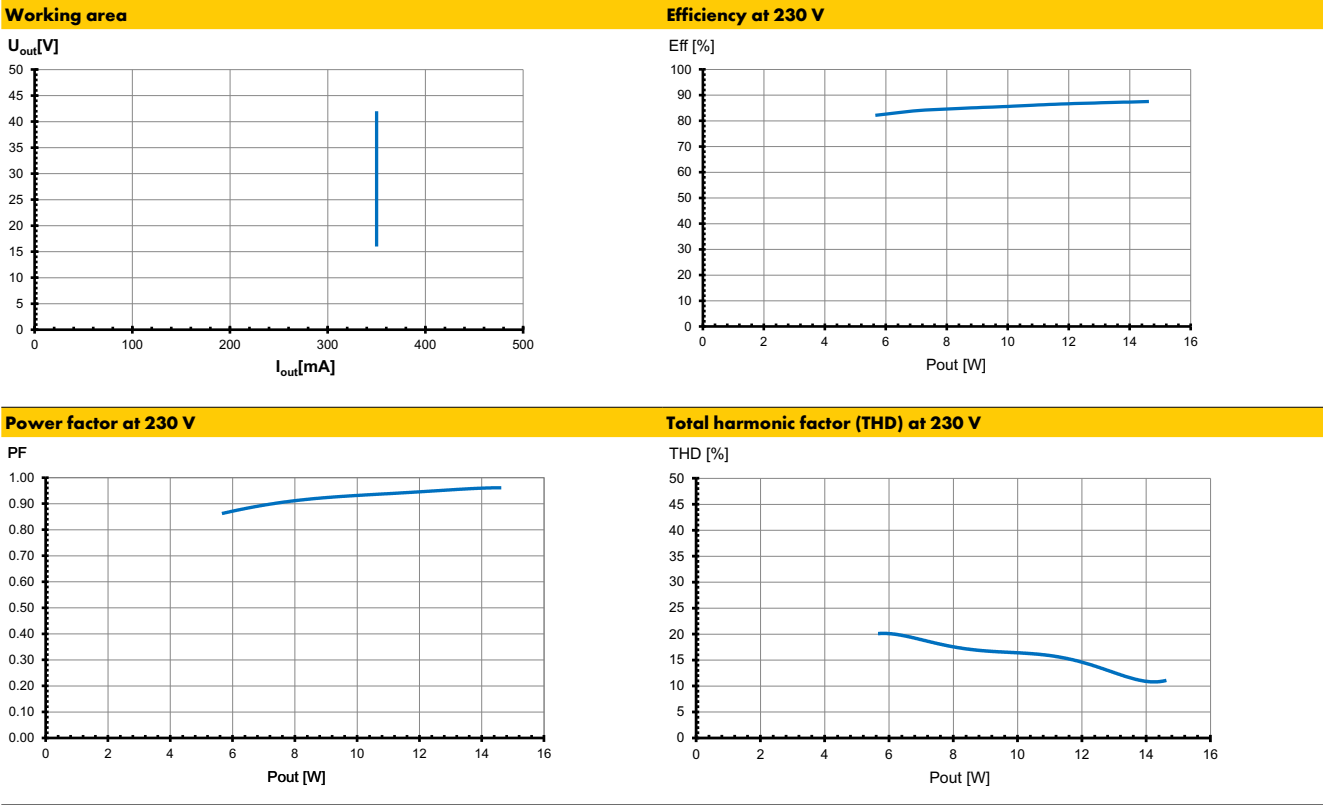
* recommended operation temperature

Product labels

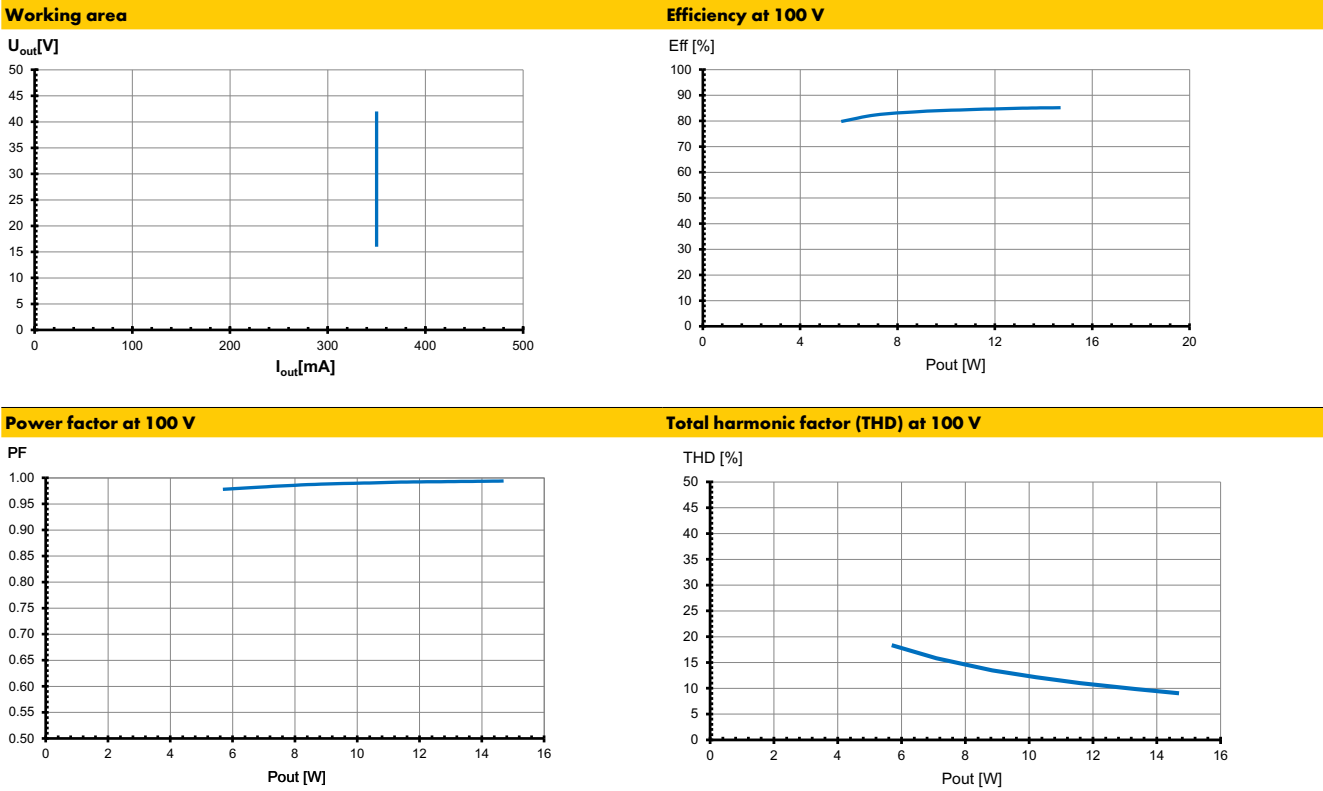


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Typ. performance graphs for 187602 / Type ECXe 350.745

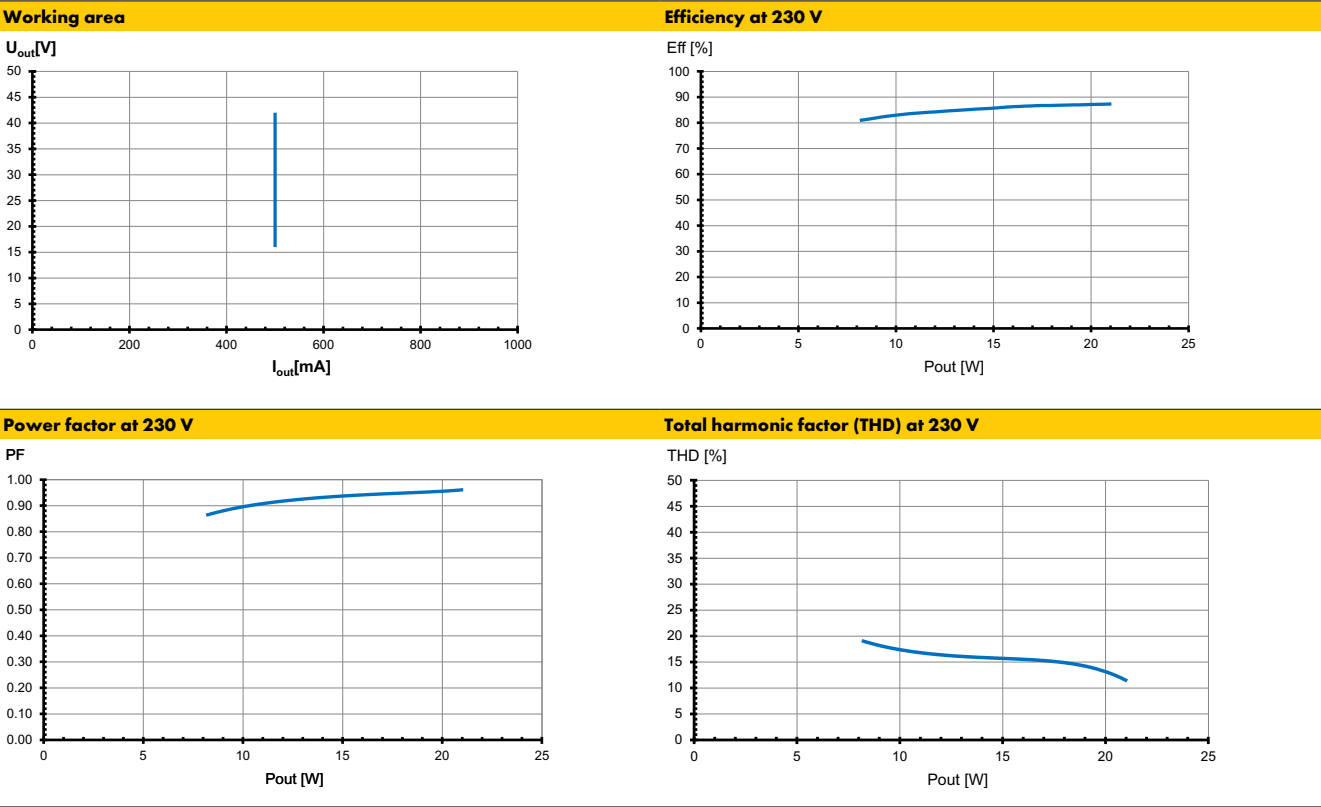


Typ. performance graphs for 187602 / Type ECXe 350.745

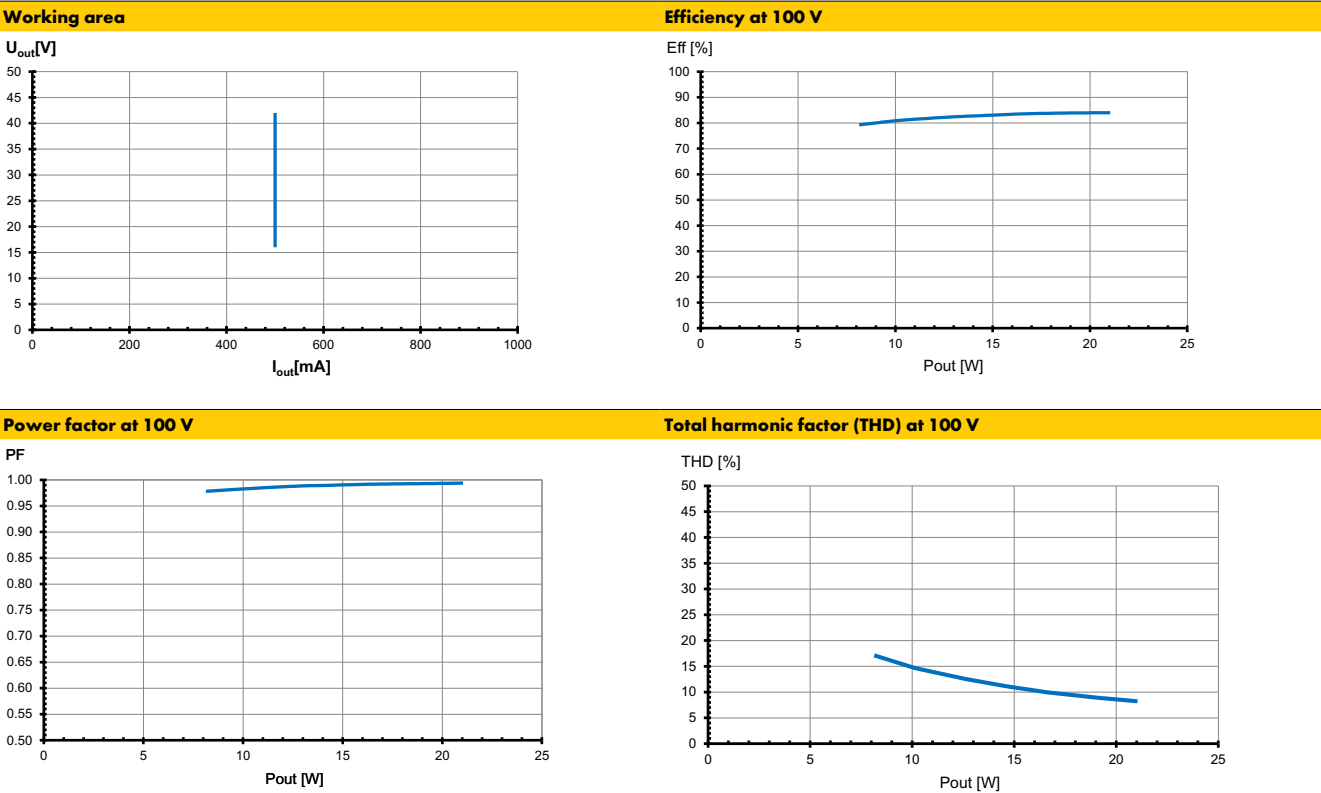


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Typ. performance graphs for 187603 / Type ECXe 500.746



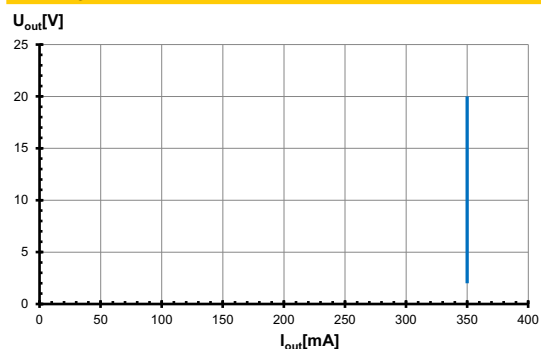
Typ. performance graphs for 187603 / Type ECXe 500.746



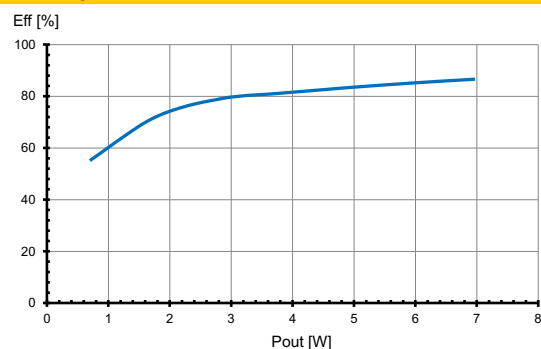
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Typ. performance graphs for 187673 / Type ECXe 350.787

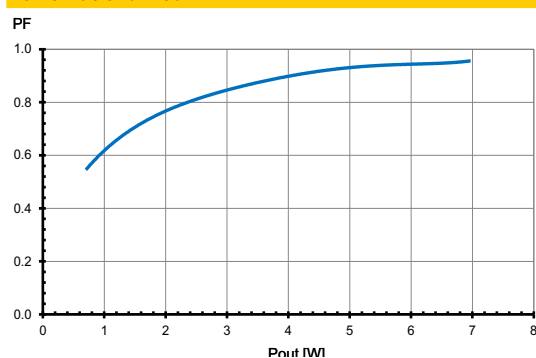
Working area



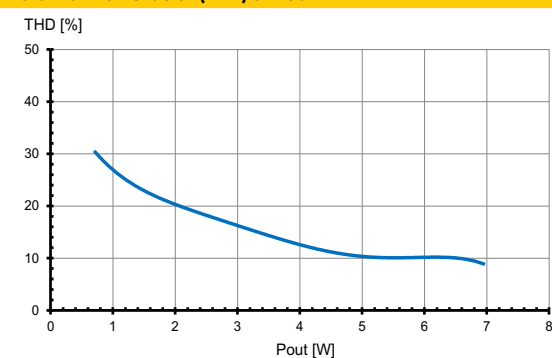
Efficiency at 230 V



Power factor at 230 V

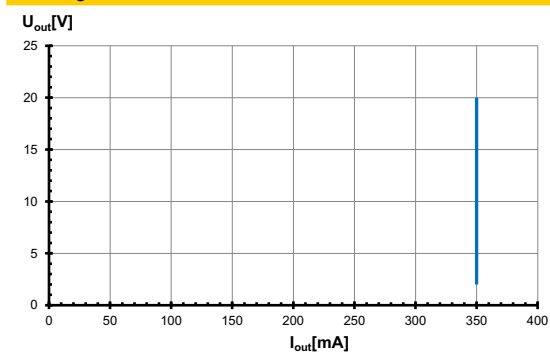


Total harmonic factor (THD) at 230 V

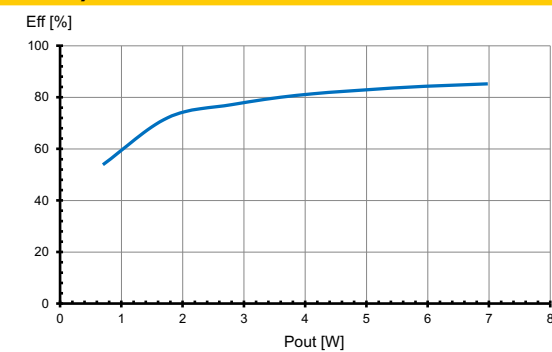


Typ. performance graphs for 187673 / Type ECXe 350.787

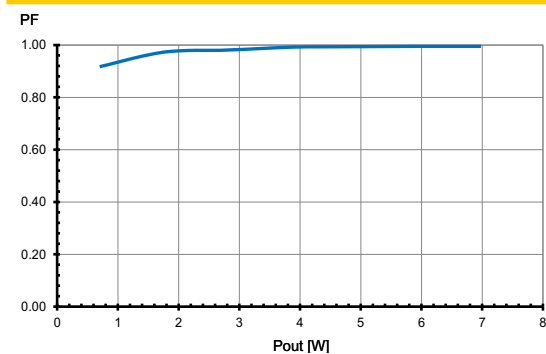
Working area



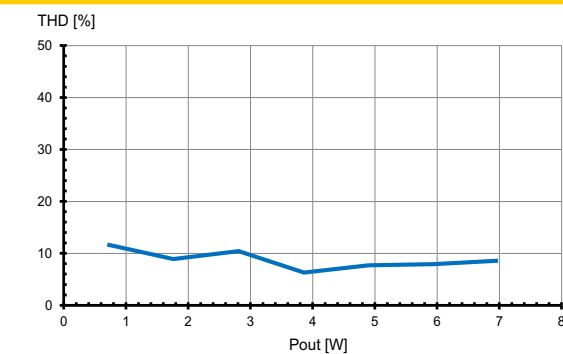
Efficiency at 100 V



Power factor at 100 V

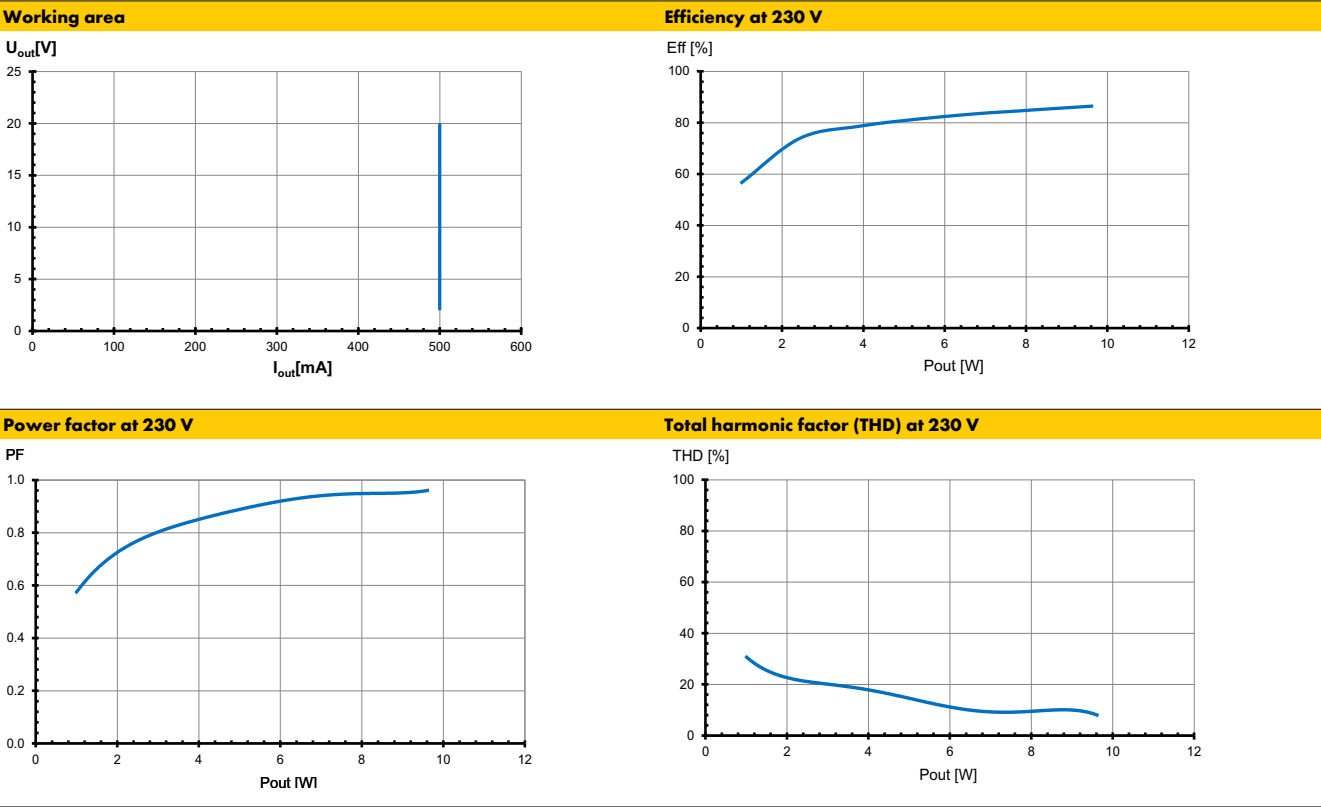


Total harmonic factor (THD) at 100 V

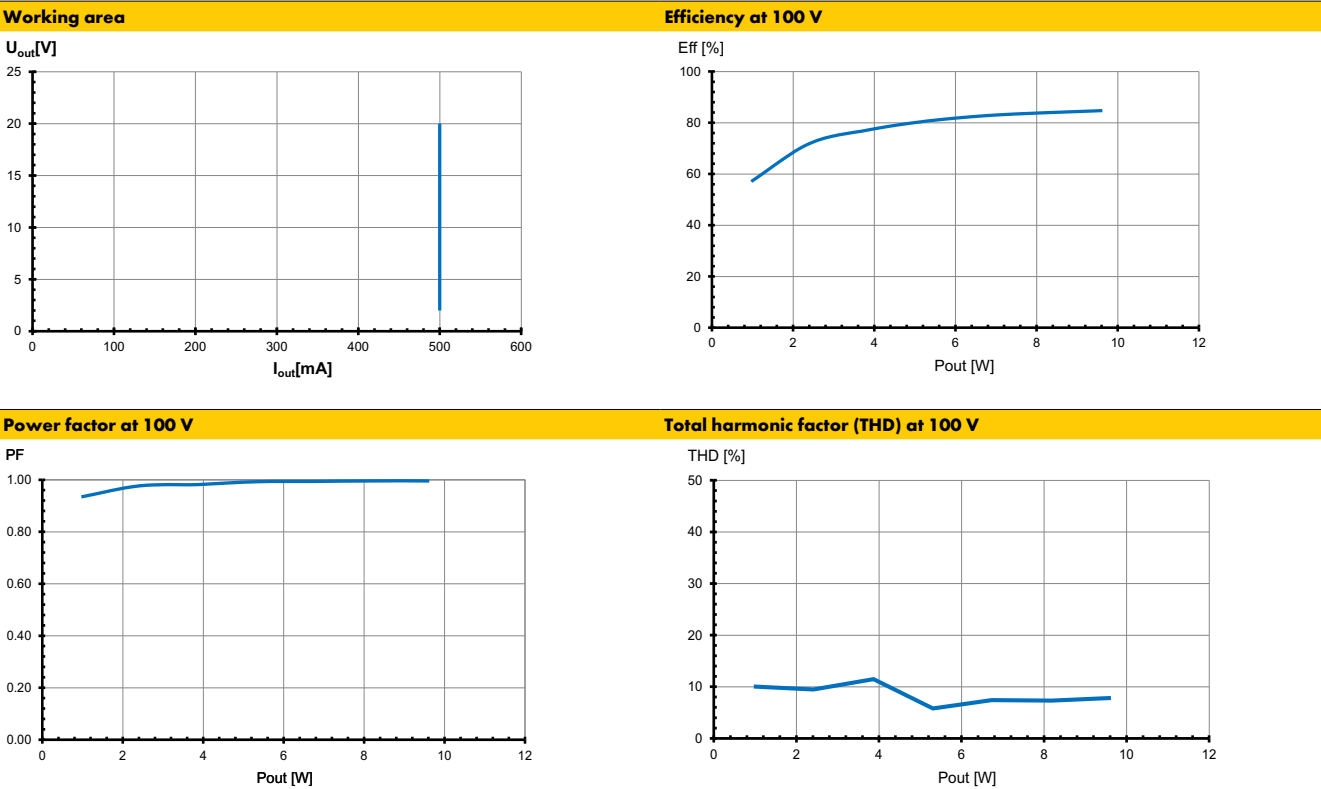


The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Typ. performance graphs for 187674 / Type ECXe 500.788

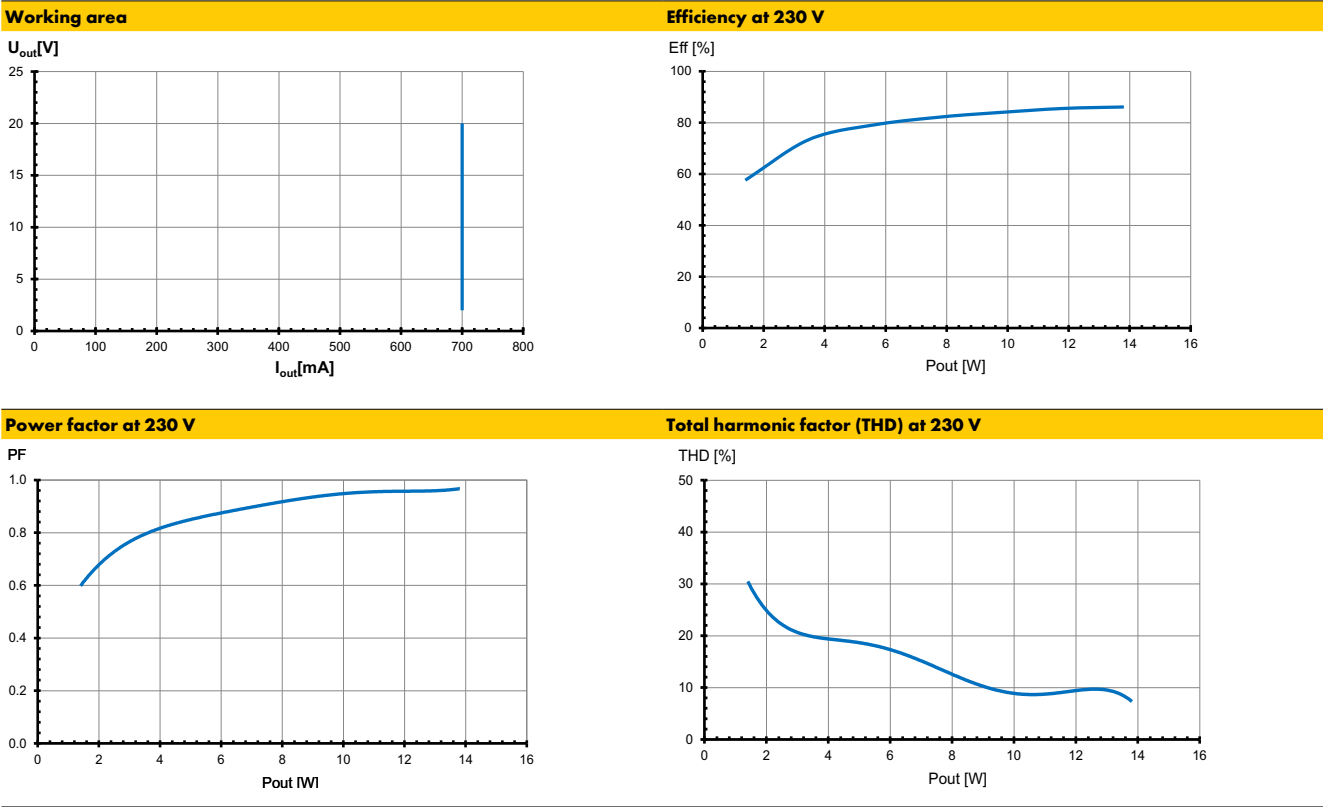


Typ. performance graphs for 187674 / Type ECXe 500.788

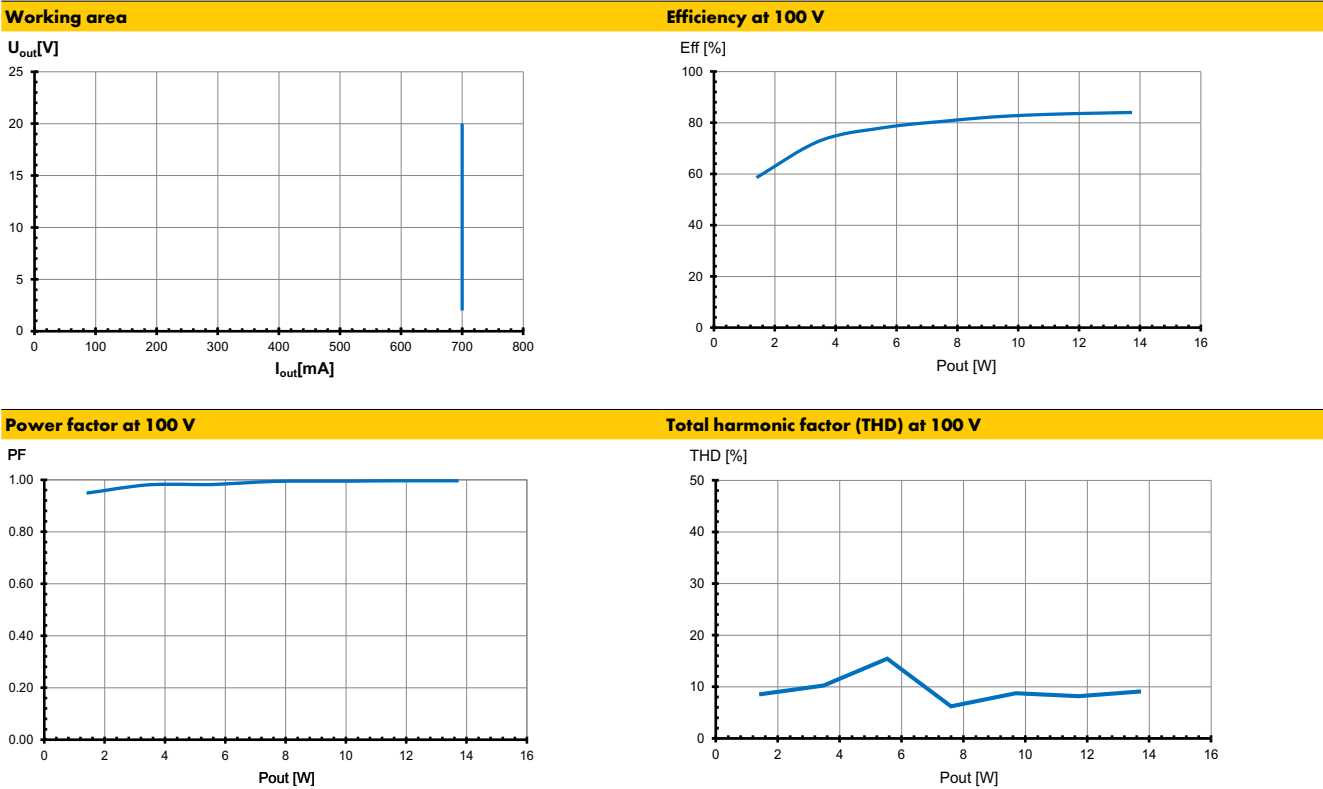


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Typ. performance graphs for 187675 / Type ECXe 700.789



Typ. performance graphs for 187675 / Type ECXe 700.789



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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 1 kV
- Short-circuit protection: The control gear is protected against
short-term short-circuit
- Overload protection: The control gear only works in range of rated
output power and voltage problemfree.
Please check before switch-on mains power
supply that the selected LED load is suitable
(see Electrical Characteristics on data sheet).
- No load operation: The control gear is protected against no load
operation (open load).
- If any of the above mentioned safety functions will be triggered, dis-
connect the control gear from the power supply then find and eliminate
the cause of the problem.

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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

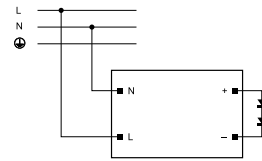
- Mounting position: Independent application: Drivers are allowed to use for independent applications
- Mounting location: Independent LED drivers do not need to be integrated into a casing.
Installation in outdoor luminaires: degree of protection for luminaire with water protection rate ≥ 4 (e.g. IP54 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 M3 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 0.5–2.5 mm²
- Stripped length: 8.5–10 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.
Max. secondary side lead length: 1 m
- 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 is within the tolerances which are mentioned in the Electrical Characteristics on the data sheet.

- Parallel wiring: Parallel connection of LED loads is not allowed.

- 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 m Ω (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		B10	B13	B16	B20
ECXe 350.745	187602	25	33	40	50
ECXe 500.746	187603	17	22	27	34
ECXe 350.787	187673	238	309	380	476
ECXe 500.788	187674	166	216	266	333
ECXe 700.789	187675	125	162	200	250
Automatic cut-out type		C10	C13	C16	C20
ECXe 350.745	187602	42	55	67	84
ECXe 500.746	187603	29	37	46	58
ECXe 350.787	187673	238	309	380	476
ECXe 500.788	187674	166	216	266	333
ECXe 700.789	187675	125	162	200	250

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