TRIDONIC

Driver LC 28W 100-700mA 40V flexC T EXC

excite in-track series



Product description
_ Constant current / in-track LED driver
_ Completely in-track, enabling a true no-compromise design
_ Optional accessory for mounting the luminaire head
_ For luminaires of protection class II
_ Temperature protection as per EN 61347-2-13 C5e
_ Selectable fixed output current via DIP switch 100 and 700 mA (pre-selected current 100 mA)
_ Max. output power 28 W
_ Up to 86 % efficiency
_ Power input on stand-by < 0.5 W
_ Nominal lifetime up to 100,000 h
_ 5 years guarantee (conditions at https://www.tridonic.com/en/int/services/manufacturer-guarantee-conditions)

Housing properties
_ Casing: polycarbonate, black, white or grey
_ Type of protection IP20

Interfaces
_ Terminal blocks: 45° push terminals

Functions
_ Overtemperature protection
_ Overload protection
_ Short-circuit protection
_ No-load protection
_ Burst protection voltage 2 kV
_ Surge protection voltage 1 kV (L to N)

Typical applications
_ For spot light in retail and hospitality application

Website
http://www.tridonic.com/28005610



Linear | High bay | Decorative | Downlights | **Spotlights** | Free-standing | Area | Floor | Wall | Street

Driver LC 28W 100-700mA 40V flexC T EXC

excite in-track series

Ordering data

Type	Article number	Colour	Packaging, carton	Packaging, low volume	Weight per pc.
LC 28/100-700/40 FlexC Ti-B EXC	**28005610**	Black	50 pc(s).	1,600 pc(s).	0.1 kg
LC 28/100-700/40 FlexC Ti-W EXC	**28005611**	White	50 pc(s).	1,600 pc(s).	0.1 kg
LC 28/100-700/40 FlexC Ti-G EXC	**28005612**	Grey	50 pc(s).	1,600 pc(s).	0.1 kg

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Max. input current (at 230 V, 50 Hz, full load)	0.15 A
Mains frequency	50 / 60 Hz
Max. input power	33 W
Max. output power	28 W
Typ. efficiency (at 230 V, 50 Hz, full load)	86 %
λ (at 230 V, 50 Hz, full load)	0.96
In-rush current (peak / duration)	0.25 A / 15 ms
Output current tolerance	± 5 %
Max. output peak current	735 mA
Max. output voltage (U-OUT)	60 V
THD (at 230 V, 50 Hz, full load)	< 20 %
Output LF current ripple (< 120 Hz)	± 0.2 %
Output P_ST_LM (at full load)	≤ 1
Output SVM (at full load)	≤ 0.4
Starting time (at 230 V, 50 Hz, full load)	< 0.5 s
Turn off time (at 230 V, 50 Hz, full load)	≤ 0.5 s
Ambient temperature ta (at lifetime 100,000 h)	25 °C
Mains surge capability (between L - N)	1 kV
Lifetime	up to 50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)
Dimensions L x W x H	300 x 28.4 x 13.8 mm

Approval marks

IP20 SELV RoHS

Standards

EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61347-1, EN 61347-2-13, EN 61547, EN 62384, EN 60598-1, EN 61000-4-4, EN 61000-4-5

Specific technical data

Type	Output current	Min. output voltage	Max. output voltage	Max. output power	tc point max.	Ambient temperature ta	I-out select
LC 28/100-700/40 FlexC Ti-B EXC	100 mA	12 V	40 V	4 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-B EXC	200 mA	12 V	40 V	8 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=on / 4=off
LC 28/100-700/40 FlexC Ti-B EXC	300 mA	12 V	40 V	12 W	85 °C	-20 … +35 °C	1=off / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-B EXC	400 mA	12 V	40 V	16 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-B EXC	500 mA	12 V	40 V	20 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=on / 4=on
LC 28/100-700/40 FlexC Ti-B EXC	600 mA	12 V	40 V	24 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-B EXC	700 mA	12 V	40 V	28 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=on / 4=on
LC 28/100-700/40 FlexC Ti-W EXC	100 mA	12 V	40 V	4 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-W EXC	200 mA	12 V	40 V	8 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=on / 4=off
LC 28/100-700/40 FlexC Ti-W EXC	300 mA	12 V	40 V	12 W	85 °C	-20 … +35 °C	1=off / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-W EXC	400 mA	12 V	40 V	16 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-W EXC	500 mA	12 V	40 V	20 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=on / 4=on
LC 28/100-700/40 FlexC Ti-W EXC	600 mA	12 V	40 V	24 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-W EXC	700 mA	12 V	40 V	28 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=on / 4=on
LC 28/100-700/40 FlexC Ti-G EXC	100 mA	12 V	40 V	4 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-G EXC	200 mA	12 V	40 V	8 W	85 °C	-20 … +35 °C	1=off / 2=off / 3=on / 4=off
LC 28/100-700/40 FlexC Ti-G EXC	300 mA	12 V	40 V	12 W	85 °C	-20 … +35 °C	1=off / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-G EXC	400 mA	12 V	40 V	16 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-G EXC	500 mA	12 V	40 V	20 W	85 °C	-20 … +35 °C	1=on / 2=off / 3=on / 4=on
LC 28/100-700/40 FlexC Ti-G EXC	600 mA	12 V	40 V	24 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=off / 4=off
LC 28/100-700/40 FlexC Ti-G EXC	700 mA	12 V	40 V	28 W	85 °C	-20 … +35 °C	1=on / 2=on / 3=on / 4=on

ACU Retaining Collar M10

Accessory



ACU Retaining Collar M10

Product description
_ Suitable for M10 x 1 threaded nut
_ Smart slider for 360° rotation (max. torque 1.5 Nm)
_ Threaded sleeve for luminaire mounting
_ The accessory is not included and must be ordered separately.

Website
http://www.tridonic.com/28005690

Ordering data

Type	Article number	Packaging, carton	Weight per pc.
ACU RETAINING COLLAR M10	**28005690**	25 pc(s).	0.003 kg

ACU Retaining Rotary Stop

Accessory



Product description
_ Retaining rotary stop for luminaire mounting
_ Prevents output wires from unplugging when overwinded
_ We suggest the use of tweezers for installation
_ The accessory is not included and must be ordered separately.

Website
http://www.tridonic.com/28005691

Ordering data

Type	Article number	Packaging, carton	Weight per pc.
ACU RETAINING ROTARY STOP	**28005691**	25 pc(s).	0.001 kg

ACU Retaining Collar M10 & Rotary Stop

Accessory



ACU Retaining Collar M10



ACU Rotary Stop

Product description

_ Suitable for M10 x 1 threaded nut
_ Smart slider for 360° rotation (max. torque 1.5 Nm)
_ Threaded sleeve for luminaire mounting
_ Retaining rotary stop for luminaire mounting
_ Prevents output wires from unplugging when overwinded
_ We suggest the use of tweezers for installation
_ One set includes 1 pc. ACU Retaining Collar M10 and 1 pc. ACU Rotary Stop
_ The accessory is not included and must be ordered separately.

Website
http://www.tridonic.com/28006396

Ordering data

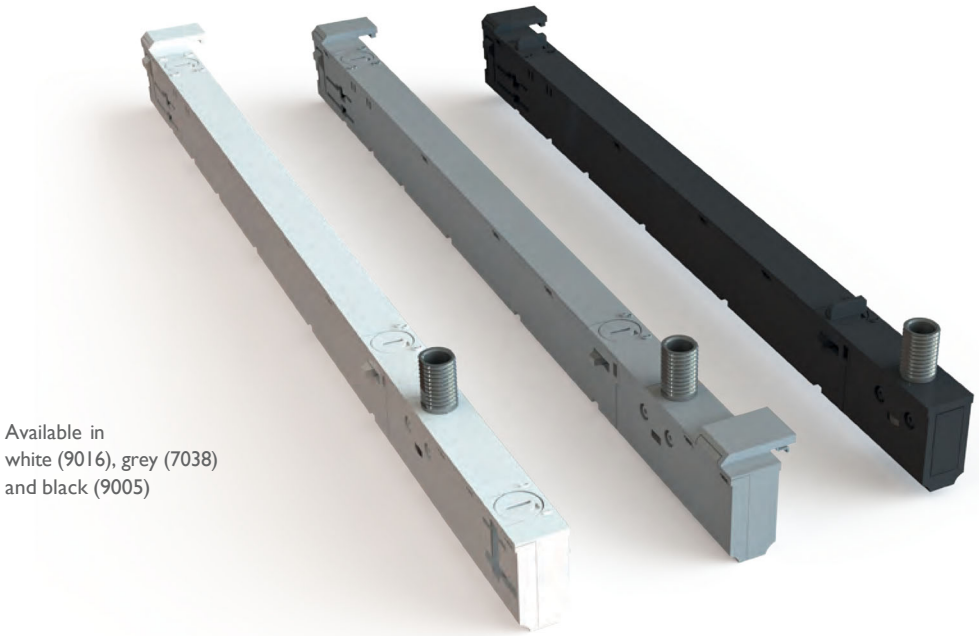
Type	Article number	Packaging, carton	Weight per pc.
ACU RETAINING COLLAR M10 & ROTARY STOP	**28006396**	500 pc(s).	0.013 kg

INVITRACK – THE INVISIBLE TRACK DRIVER

Nordic Power Converters have joined forces, and combined cutting- edge LED drivers with world-class track components to fix an industry eye-sore; the new InviTrack driver series puts the entire LED driver inside the track. The driver is virtually invisible, the only thing seen on the track is your perfectly designed luminaire. Set your design free and improve the Quality of Light at the same time.

Product Advantages

- **Completely in-track,** enabling a true no-compromise design.
- **Flicker free,** no visible or perceivable fiicker (IEEE1789 NOEL compliant, very low PstLM and SVM values).
- **Low temperature,** ensuring high reliability through high efficiency and good thermal design.
- **No inrush current,** enabling use of the full power rating of the main fuse.
- **Fits all major tracks,** including Global, Stucchi, PowerGear and more.



Available in
white (9016), grey (7038)
and black (9005)

Main specifications

Specification item	Value
Input voltage	220...240 V
PF	> 0.96
THD	< 20%
Inrush	>100 drivers on a MCB16A type B fuse
Efficiency	86%
Isolation	SELV/Class-II
Output power	28 W

Specification item	Value
Output current	100...700 mA
Output voltage	12...40 V
Size	300×13.8×28.4 mm
Luminaire weight, max	1.5 kg
Lifetime	50,000 hrs
Ambient temperature	-20 °C to 35 °C
Tcase max	85 °C

Electrical specifications

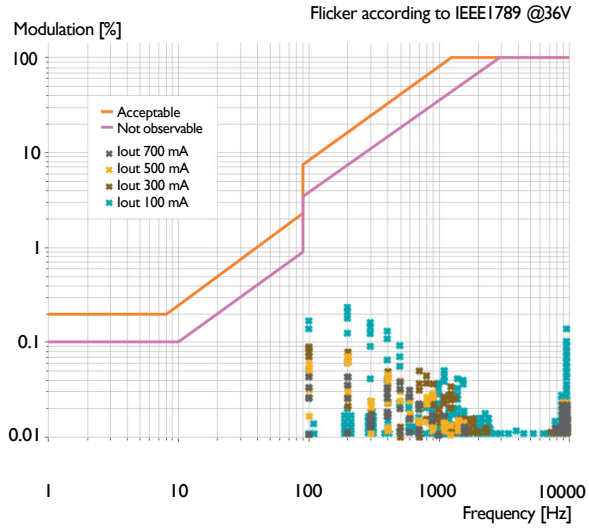
Input characteristics

Specification item	Value	Condition
Rated input voltage range	220…240 V_{AC}	Performance range
Rated input voltage	230 V_{AC}	
Rated input frequency range	50/60 Hz	Performance range
Rated input current	150 mA	@ 28 Wout and 230 Vac
Rated input power	33 W	@ 28 Wout and 230 Vac
Power factor	> 0.96	@ 28 Wout and 230 Vac
Total harmonic distortion	< 20%	@ 28 Wout and 230 Vac
Efficiency	86%	@ 28 Wout and 230 Vac
Standby	0.25 W	
EU Ecodesign	Compliant	Requirements of December 2019
Input voltage range	198…264 V_{AC}	Operational range
Input frequency range	47…63 Hz	Operational range
Isolation input to output	SELV	
Inrush current I_{PEAK}	0.25 A	@ rated input voltage
Inrush current T_{WIDTH}	15 ms	@ rated input voltage @ 50% I_{PEAK}
Drivers/MCB 16A type B	> 100 pcs	

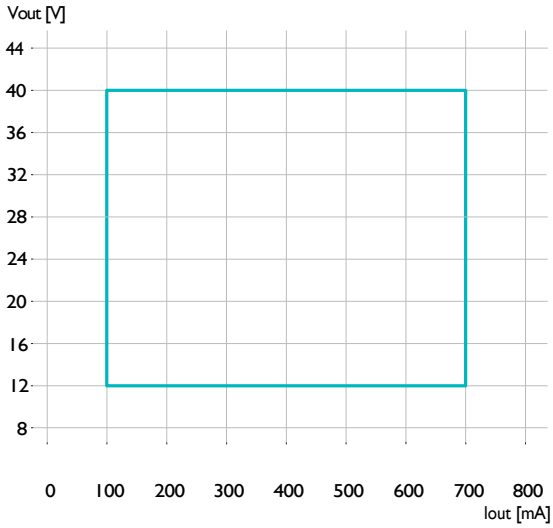
Output characteristics

Specification item	Value	Condition
Control method	Constant current	
Output voltage range	12…40 V_{DC}	
Output voltage (max)	60 V_{DC}	Peak voltage at open load
Output current range	100…700 mA	Set via dipswitch
Output current tolerance	±5%	@ 36 V_{DC}
Output flicker	IEEE1789 NOEL	Compliant with IEEE1789 No Observable Effect Limit
PstLM	< 0.1	@ 36 Vdc and 700 mA
SVM	< 0.05	@ 36 Vdc and 700 mA
Output current ripple, <120 Hz	0.2%	@ 36 V_{DC}
Output current ripple, <3 kHz	0.2%	@ 36 V_{DC}
Output power	28 W	@ 40 V_{DC}

Flicker measurement

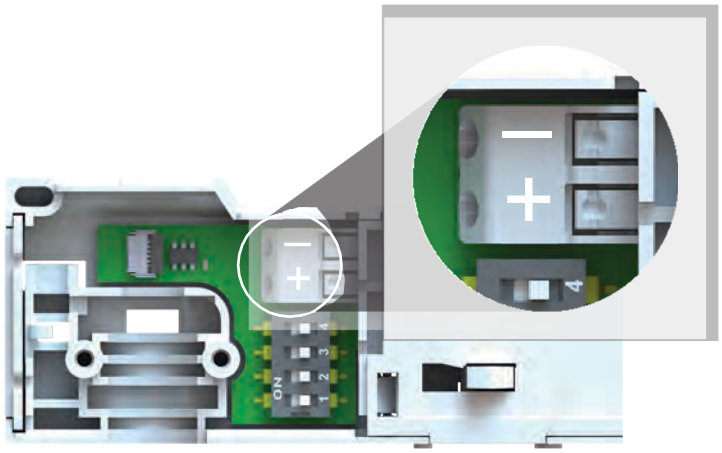


Output window



Wiring and connections

Specification item	Value	Condition
Output wire cross-section	0.2…0.75 mm2	Solid or strand wire
	24…18 AWG	Solid or strand wire
Output wire strip length	7…9 mm	
Screw size	Torx 6	
Maximum cable length	300 mm	Total length of wiring including LED module, one way
Maximum luminaire weight	1.5 kg	According to EN 60570

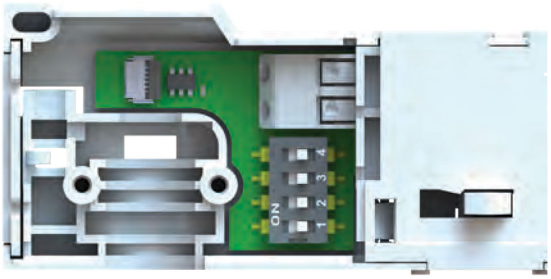


Set output current

Via dipswitch

Value	Switch 1	Switch 2	Switch 3	Switch 4
700 mA	ON	ON	ON	ON
650 mA	ON	ON	ON	–
600 mA	ON	ON	–	ON
550 mA	ON	ON	–	–
500 mA	ON	–	ON	ON
450 mA	ON	–	ON	–
425 mA	ON	–	–	ON
400 mA	ON	–	–	–

Value	Switch 1	Switch 2	Switch 3	Switch 4
375 mA	–	ON	ON	ON
350 mA	–	ON	ON	–
325 mA	–	ON	–	ON
300 mA	–	ON	–	–
250 mA	–	–	ON	ON
200 mA	–	–	ON	–
150 mA	–	–	–	ON
100 mA	–	–	–	–



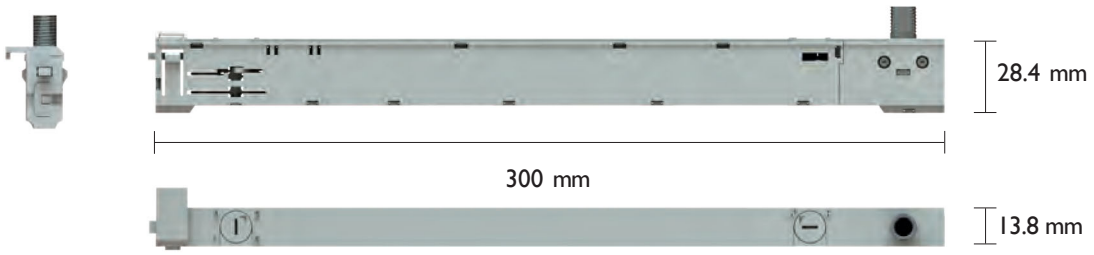
Compatible tracks

Manufacturer	Part number
Global	XTS Series, XTSF Series, XTSC Series, XTSCF Series
Stucchi	9000 ST, 9000A ST, 9000 R, 9000 H, 9000 ST15
PowerGear	PRO-04 Series, PRO-R4 Series, PRO-06 Series, PRO-R6 Series

Tests have been done with tracks taken from the market in 2020-2023.
Nordic Power Converters has no control or responsibility on any future or past possible changes made by different manufactures that could affect the compatibility between tracks and adapters.
When product is used, a clearance distance between the InviTrack casing and any of the track's non-insulated live parts (incl. DALI conductors) must be minimum 3 mm. The retaining collar is not intended to be electrically connected to the LED output terminals or protective earth.

Dimensions and weight

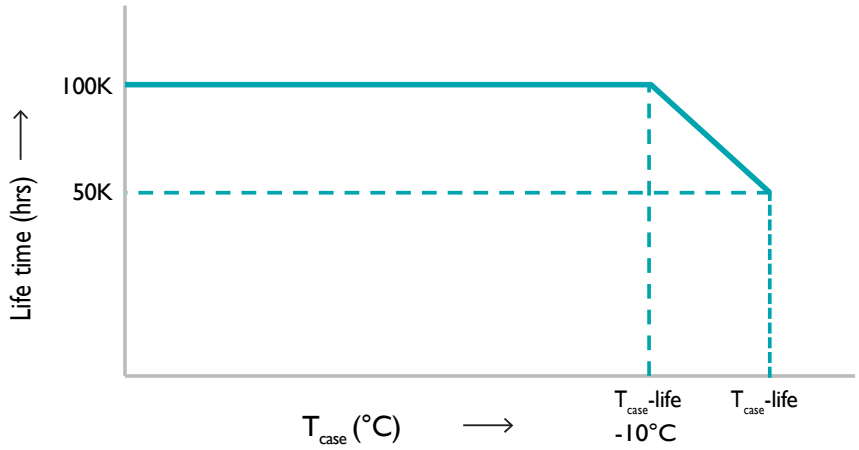
Specification item	Value	Condition
Length	300 mm	See below
Width	13.8 mm	
Height	28.4 mm	Without retaining collar
Weight	110 g	



LC 28/100-700/40 flexC Ti EXC

Operating Conditions

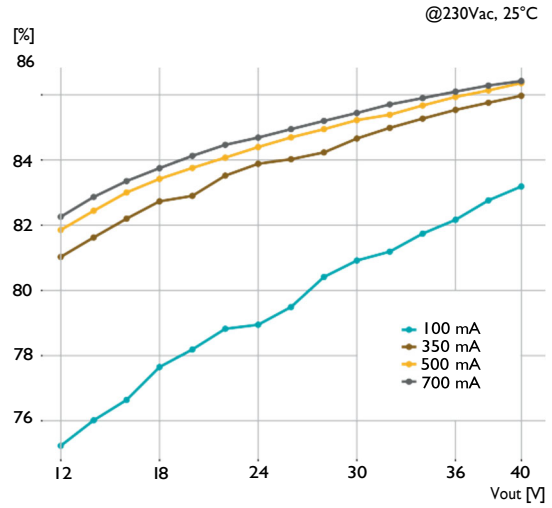
Specification item	Value	Condition
Ambient temperature	-20…+35 °C	Higher ambient temperature allowed as long as T_{case}-max is not exceeded
T_{case}-max	85 °C	Maximum temperature measured at T_{case}-point
T_{case}-life	85 °C	Measured at T_{case}-point
Relative humidity	5…85%	Non-condensing
Mains surge immunity (diff. mode)	1 kV	Acc. IEC61000-4-5 2 Ohm 1.2/50 us, 8/20 us
Mains surge immunity (comm. mode)	2 kV	Acc. IEC61000-4-5 2 Ohm 1.2/50 us, 8/20 us
Lifetime	50,000 hrs	Measured temperature at T_{case}-point is T_{case}-life. Maximum failures = 10%
Warranty	5 years	



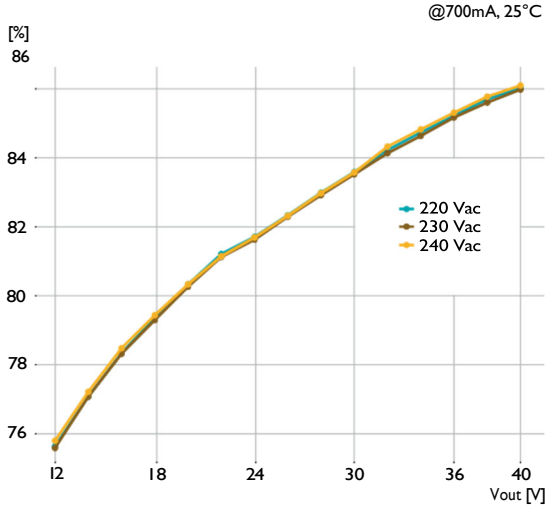
Conformity and standards

Specification item	Value	Condition
Protection class	Class II	
Isolation voltage	3 kV	
Casing class	IP20	
Approvals	CE	
EMC standards	EN 55015, EN 61547, EN 61000-3-2 (class C)	
CB certificate (safety standards)	IEC 61347-1, IEC 61347-2-13, IEC 60570, IEC 62384	The CB certificate includes EU group differences, AU and NZ

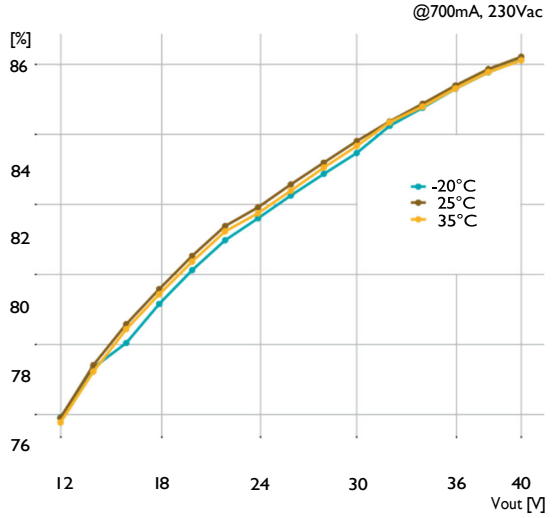
Efficiency vs. Output current



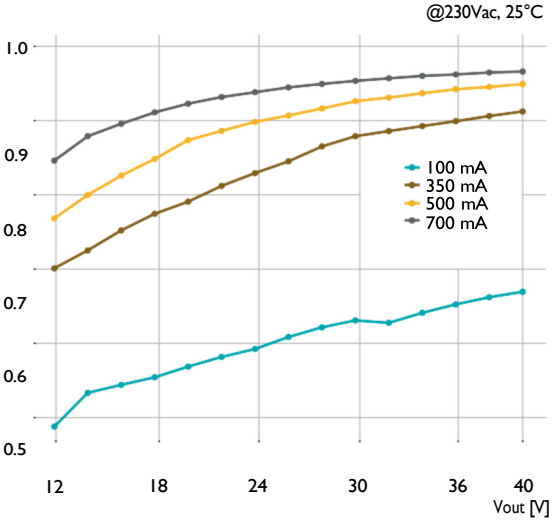
Efficiency vs. Input voltage



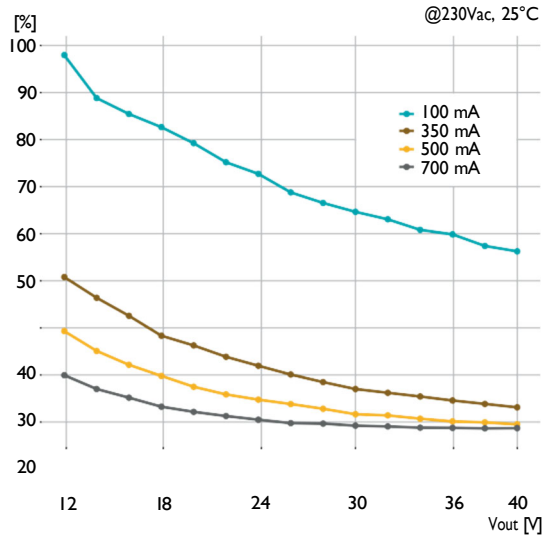
Efficiency vs. Temperature



Power factor vs. Output current



THD vs. Output current



Dim Efficiency vs. Output voltage

