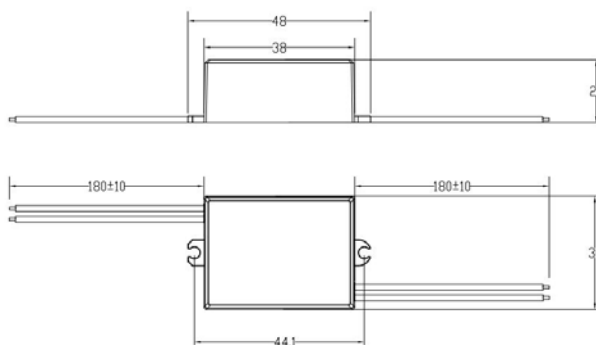
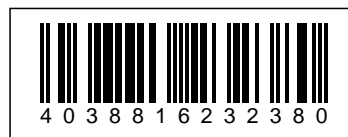


## Synergy 21 LED Deckeneinbauspot Helios Netzteil TRIAC dimmbar



### Features

- Super compact design for built-in use
- Dimmable constant current driver
- Analogue flicker-free
- Dimming with trailing edge dimmer
- Smooth dimming compatible with most dimmer
- Dimming range 10...100%
- Primary and secondary sides come with leads
- Protections: opencircuit, shortcircuit, overload, overtemperature
- Seal with glue, the operating temperature up to 60°C
- SELV equivalent
- Suitable for class I&II luminaires
- Protection class II

### Applications

- Office
- Shop
- Hospitality
- Public areas

### Approbations &

Certifications TUV, CE, CB

### Housing properties

- Housing material: plastic, white.
- Type of protection IP20.

## Electrical Specifications

Type		Unit	MINI-4-200T
INPUT	Nominal voltage	V	220 – 240
	Nominal frequency	Hz	50 / 60
	AC voltage range	V	198 – 264
	DC voltage range	V	N/A
	Nominal current	A	0.04
	THD (Full load)	%	≤ 25
	Power factor (Full load)		0.90C
	Efficiency (Full load)	%	69
	Turn on time	ms	≤ 500
	No load	W	N/A
	Protection class		II
	Inrush current(Cold start)	A pk	5 (th = 100 μs)
	Max.units per circuit breaker		B10:140 B13:180 B16:224 B20:280 C10:250 C13:325 C16:400 C20:500
OUTPUT	Nominal voltage range	V	10 - 20
	Maximum voltage(Open Circuit)	Vdc	≤ 27
	Nominal current	mA	200
	Current accuracy	%	+/-8
	Current ripple ≤120Hz	%	≤ 10
	Pst LM		≤ 1
	SVM		≤ 0.4
	Nominal power range	W	2 – 4
	Maximum power	W	4
	Galvanic isolation		SELV
ENVIRONMENT	Ambient temperature range ta	°C	-20 ...+60
	Maximum case temperature tc	°C	90
	Max. Case temp. In fault condition	°C	110
	Storage temperature range	°C	-20 ...+70
	Relative humidity	%	5 ... 85 (Not condensing)
	Surge transient protection	kV	0.5   1 (L/N   LN/PE acc to. EN 61547 Clause 5.7)
	Environmental rating		Indoor
	IP rating		IP 20
	Mains switching cycles		> 100,000
Expected lifetime	h	50,000 (0.2% / 1'000 h failure rate)	

\*All parameters NOT specially mentioned are measured at 230VAC input ,rated current and 25°C of ambient temperature

## Protections

**Over temperature:** Yes

**Over load:** Yes

**No load:** Yes

**Short-circuit:** Yes

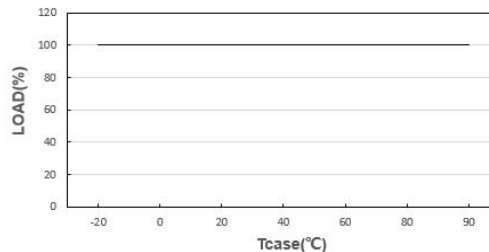
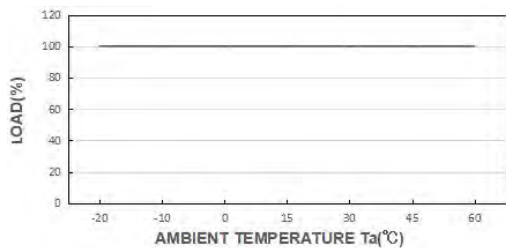
**Input overvoltage**

Maximum allowed input voltage 264V AC

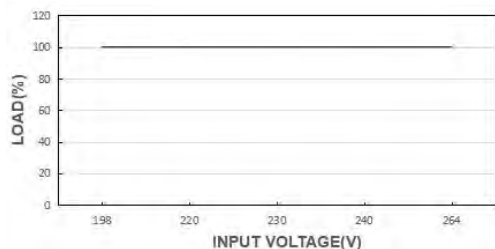
**Output overvoltage**

Yes

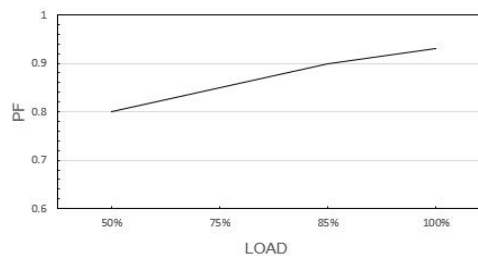
### OUTPUT LOAD vs TEMPERATURE



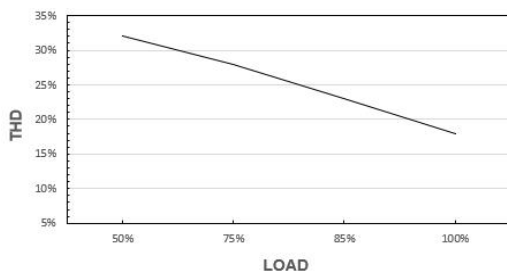
### STATIC CHARACTERISTIC



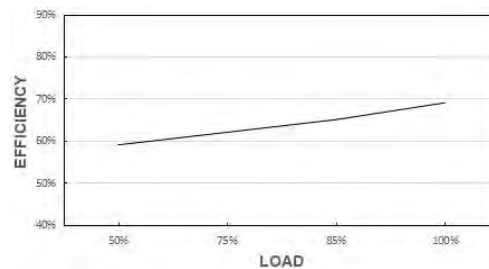
### POWER FACTOR (PF) CHARACTERISTIC



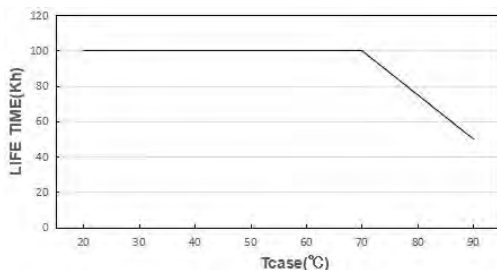
### TOTAL HARMONIC DISTORTION (THD)



### EFFICIENCY vs LOAD



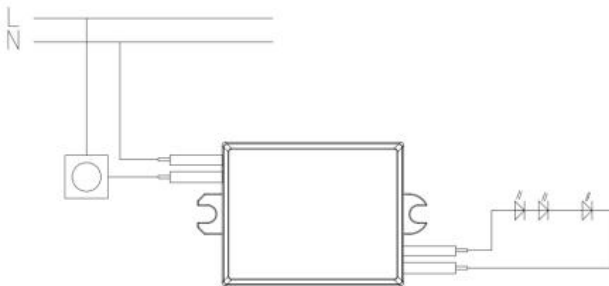
### LIFE TIME



\*The graph is for reference only, and the detailed values refer to the parameter table

## Wiring Diagram

Max. cable length - system:	2 m
Dimensions(LxWxH):	48 x 30 x 20 mm
Mounting hole spacing , length	44.1 mm
Wire length	180 ± 10mm
Weight:	45 ± 8 g



Input Wire: VDE 7726 0.5mm<sup>2</sup> Output Wire: UL 3266 20AWG

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

## Remarks

-Touch current: lower than 0.7 mA, according to EN 60598-1 annex. G and EN 61347-1 annex A

## Standards

EN 61347-1  
EN 61347-2-13  
EN 62384  
EN 55015  
EN 61000-3-2  
EN 61000-3-3  
EN 61547  
EN 60598-1  
EN 50581  
IEEE1789  
(EU) 2019/2020