

## **Product Description**

- different power range adjustable with DIP switch
- constant current LED driver
- output current: 500mA,550mA, 650mA and 700mA
- max output power 28W
- lifetime up to 50000 hours
- insulation Class: I,II
- temperature protection comply with EN61347-2-13 CE
- 5 years warranty
- •The Class II symbol is just considered by driver, not by adaptor system.
- Track adapters can be used with Class III luminaires.
- Suitable for following tracks
- NA Globaltrac pro
- Eutrac 25101
- Stucchi
- Ivela
- Unipro
- Concord
- Hoffmeister
- further on request

# Flicker Free Concealed Adaptor with Integrated LED Driver ( 3 Phase)

## SC28W500-700CG-4





#### **Performance**

- Case: PC(polycarbonate), fire-protection rating: 91-V0 conformed with ROHS
- Color: black RAL9005 (B) ,grey RAL7040 (G) ,white RAL9016 (W)
- Nipple color: black RAL9005 (B) ,grey RAL7040 (G) ,white RAL9016 (W)
- Red copper alloy contacts
- 2KV surge
- ingress protection: IP20

#### **Product Characteristics**

- The lamp control gear does not rely upon the luminaire enclosure for protection against accidental contact with live parts, the LED light source load can't be accessible.
- If the components are unsuitable for the connection of inductive loads, or de-rating for inductive loads if appropriate.
- It is the user's responsibility to ensure electrical, mechanical and thermal compatibility between the track system and luminaires attached to it.
- for LED lamps use only

#### **Protections:**

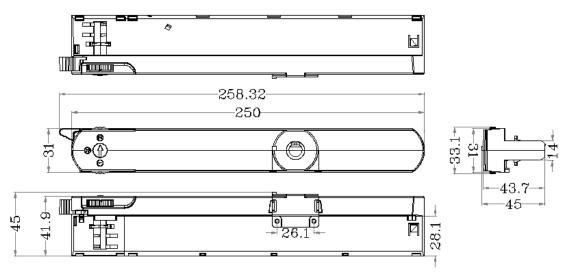
- Over-load protection
- Short Circuit protection
- No-load protection
- Under-voltage protection



# **Specifications**

Rated supply voltage	220-240V		
Input voltage	198-264VAC or 200-250VDC		
Mains frequency	50-60Hz		
THD (at 230 V, 50 Hz, full load)	< 20 %		
Output current tolerance	±5%		
Output current ripple (at 230 V, 50 Hz, full loaded)	$\pm$ 3%(Imax-Imin)/(Imax+Imin)		
Inrush Current	33.2A/600μs		
Connected quantity of 16A Breaker	25pcs/type B; 40pcs/type C @230Vac		
Surge withstand resistance	L-N/2KV		
Insulation and voltage resistance	3.0KV/60s/5mA		
Starting time (at 230 V, 50 Hz, full loaded)	<0.5 s		
Turn-off time (at 230 V, 50 Hz, full loaded)	<0.3 s		
Ambient Temp (ta):	-20+45℃		
The maximum permissible track temperature under	<b>45℃</b>		
normal operating conditions:			
Life time	100000 hours@35 ℃		
Life time	50000 hours@45℃		
Storage Temp: (ts):	-30+75℃		
Size L×W×H	250 x 31 x 45		
Net weight:	150g		

# **Product size:**





## **Standards:**

ENEC+CE: EN 55015: 2013/A1: 2015 CB: IEC 60570:2003 SAA: AS/NZS IEC61347.2.13.2013

EN 61000-3-2: 2014 IEC 60598-1:2014 AS/NZS 61347.1.2016 EN 61000-3-3: 2013 IEC 61347-1:2015 AS/NZS 60598.1:2017

EN 61347-1:2015 IEC 61347-2-13:2014

EN 61347-2-13:2014/A1:2017 IEC 61347-2-13:2014/AMD1:2016

EN 61547:2009

EN 62384:2006/A1:2009

EN 60598-1:2015 EN 60570:2003

#### **Glow-wire test**

According to EN61347-1, pass  $850^{\circ}$ C temperature test.

#### **Over-load protection**

If the output voltage range exceeded rated range, the LED Driver reduces the LED output current or in burst modes. After elimination of the overload the nominal operation is restored automatically.

## **Short circuit protection**

In case of a short circuit on the secondary side (LED) the LED Driver switched off. After elimination of the short-circuit fault the LED Driver will recover automatically.

#### No-load protection

The LED Driver works in burst working mode to limit output voltage which allows the application to be able to work safely when LED string opens due to a failure.

## **Under voltage protection**

The LED Driver will switch off when input voltage is lower than 150-170VAC.

## **Storage condition**

Humidity 5%-85%

Non-Condensable

\*max. 60 days per year at 85 % humidity

#### Storage temperature: -30 °C up to max. +75 °C

The devices have to be within the specified temperature range (ta) before they can be operated.



## **Replace LED module**

- Mains off
- Remove LED module
- Wait for 10 seconds
- Connect LED module again

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

Lamp isolation and electric strength test.

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production..

According to IEC 60598-1 Annex Q or ENEC 303- Annex A,each lamp must be tested by 50VDC/1s isolation test.\* The isolation resistance must be at least  $100M\Omega$ .

As an alternative, IEC 60598-1 Annex Q describes a 2000V electric strength test.

#### Installation instructions

Maximum loading: 50N (Inclusive of the weight of luminaires and accessories) / max torque: 2,5Nm The LED module and all contact points within the wiring must be sufficiently insulated against 2 KV surge voltage. Air and creepage distance must be maintained.

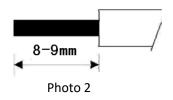
## Wiring guidelines

# Wiring type and cross section

The wire can be stranded wire and output wire can be  $0.5 - 1.5 \text{ mm}^2$ .



Photo a2



Strip 8-9 mm of insulation from the cable ends to ensure perfect operation of the wire terminals. Each terminal block only for one piece of wire.



ltem No.	Output current (230VAC Full load)	Input current (230VAC Full load)	Input load (230VAC Full load)	Output load range	PF (full load)	Efficiency (full Load)	Output voltage range
	500mA	0.13A	25.5W	20W	0.90	87%	30-40V
CC30N/F00 700CC 4	550mA	0.14A	27W	22W	0.90	88%	30-40V
SC28W500-700CG-4	650mA	0.15A	30W	26W	0.92	88%	30-40V
	700mA	0.16A	33W	28W	0.92	88%	30-40V

All parameters are tested at 220VAC input, full load and 25  $^{\circ}$ C ambient temperature after connected to power for 30 minutes.

# **Expected life time**

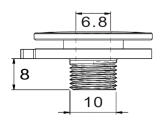
Item No.	Output current	Та	35℃	45℃
	500mA -	tc	53.2	62.2
		Life-time	100000H	50000H
	550mA -	tc	54.1	63.8
CC20WE00 700CC 4		Life-time	100000H	50000H
SC28W500-700CG-4	650mA	tc	58.6	68.4
		Life-time	100000H	50000H
	700mA	tc	60.3	73.4
		Life-time	100000H	50000H

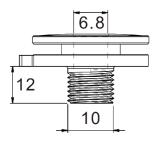
<sup>\*</sup>The LED Drivers are designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.

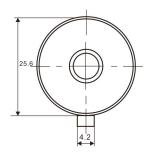


# Lamp screw type



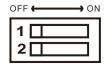






# **DIP Switch Operation instructions (\*Hot-line working prohibited)**





PIN1	PIN2	Irated [mA]	Prated [W]	
OFF	OFF	500	20	
ON	OFF	550	22	
OFF	ON	650	26	
ON	ON	700	28	

## **DIP switch parameters:**

contact resistance (initial value):  $\leq 50m\Omega$  contact resistance (after testing):  $\leq 100m\Omega$ 

switching capacity (switches frequently switched): 25mA 24VDC switching capacity (switches not switched frequently): 100mA

insulation resistance:  $\geq 100 M\Omega$ .Min.at 500VDC

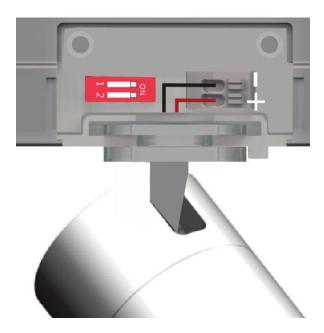
dielectric strength: 500VAC Min. for 60 seconds.1mA

interelectrode capacitance: ≤5PF operating force: 1000gf max electrical life: 3000 times



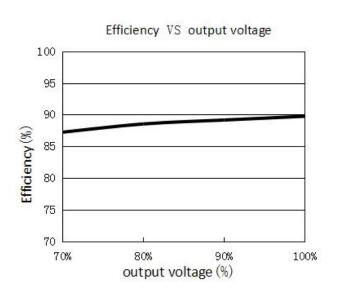
# Wiring guidelines

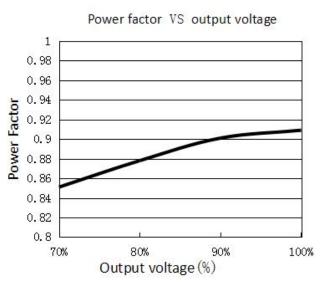
- All connections must be kept as short as possible to ensure good EMI behaviour.
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 10 cm distance)
- Secondary switching is not permitted.
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth.

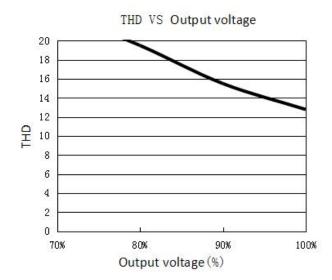




# SC28W500-700CG-4 (500mA)

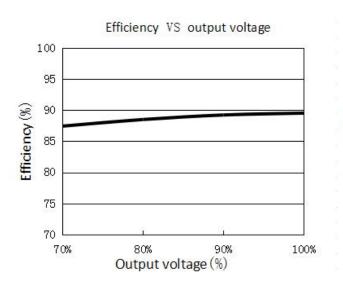


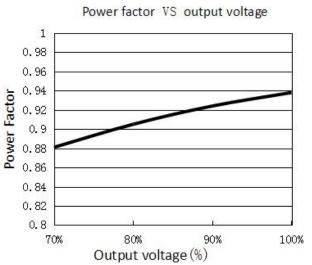


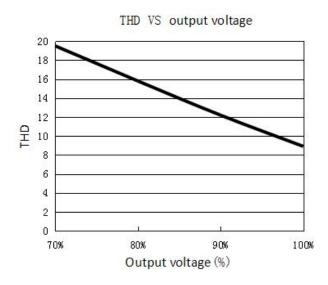




# SC28W500-700CG-4 (550mA)



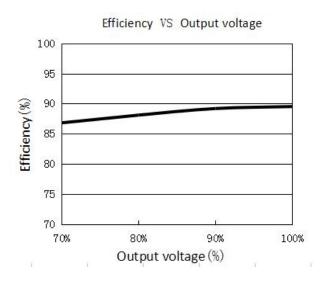


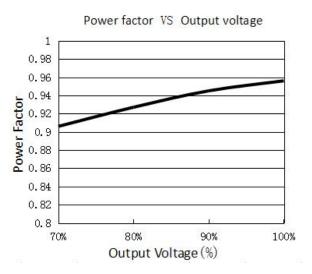


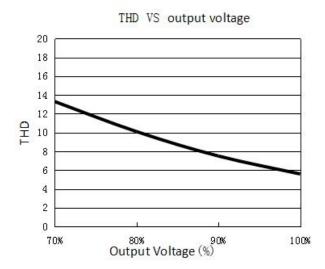




# SC28W500-700CG-4 (650mA)

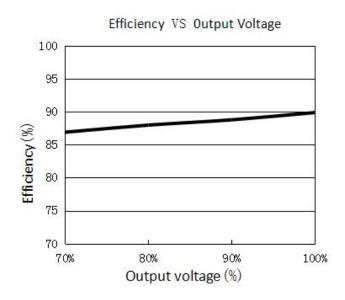


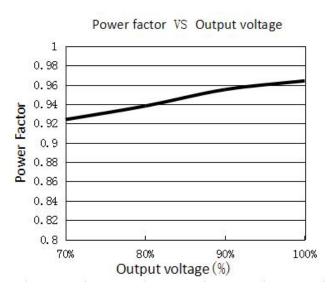


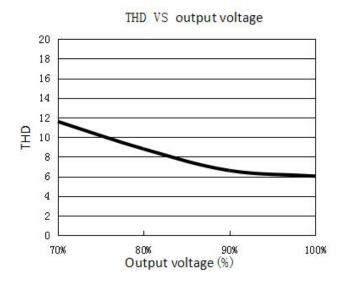




# SC28W500-700CG-4 (700mA)







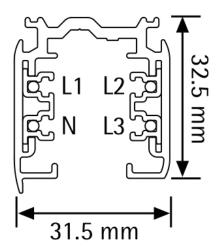


## Packing information:

Item No	Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)	
SC28W500-700CG-4	515*274*370	90	0.145	13.05	14.5	

# 3 Phase track light rail specification (for reference only):





# Lighting track adapter and rail system installation diagram (for reference only):





The adaptor shall be given that the use is limited to the track system specified.