

LED INTEGRATED SPECIAL DRIVER

Product Series

SCP-100-90X SERIES

REV

V3.0

SPECIFICATION FOR APPROVAL

CUSTOMER:						
MODEL NO.:	SCP-100-90X SERIES					
Rev.:	V3.0					
SAMPLE DATE:						
		Customer Confirmation				
TESTED BY		CHECKED BY	APPROVED BY			
NOTE:						
Please return to us	one copy of	"SPECIFICATION FOR APPROVAL" wi	ith you approved signature.			
SUNCOM Confirmation						
TESTED BY		CHECKED BY	APPROVED BY			
		ı				

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Product Series	SCP-10
Product Type	LED IN

LED INTEGRATED SPECIAL DRIVER

SCP-100-90X SERIES

REV

V3.0

■ CHANGE HISTORY

DATE	CAUSESOFCHANGE	REV.	APPROVED
2021.10.15	Initial Version	V1.0	
2022.5.9	Adding case Temperature / lifespan curve diagram	V2.0	
2023.5.18	Update label and add under-voltage protection	V3.0	



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♦ Features:

■ Input Rated voltage: 100-277Vac 50Hz/60Hz

■ Isolation, Constant current mode output

■ Surge Protection: L-N:6KV; L/N-E:10KV

■ 3 in 1 dimming(dim-to-off): PWM/0-10V/resistance

■ AUX Power:12V/0.25A

Over temperature drop current

■ Output current is adjustable

■ Input under-voltage protection

■ THD<15%



◆ Applications :

Application: Street light, high bay lighting and other lighting lamps

◆ Description :

This product is a constant current drive power supply, specially designed for LED, with low harmonic (< 15%), high power factor. Output current can be flexibly adjusted according to the led lamp voltage. 3 in 1 dimming. Built-in Surge protection, output open-circuit, short-circuit protection, input under-voltage protection, greatly improve the safety and reliability of the product.

■ MODELLIST:

Model	Rated Power	Input Voltage	Output Voltage	Output Current	Default current @72V	THD. (Typ)	PF. (Typ)
SCP-100-90X	100W	100-277Vac	54-90V	0.8A-1.5A	1.25A	10%	0.97

NOTE: All parameters NOT special mentioned are measured at 230Vac input, rated load and 25°C of ambient temperature

"X"Means Additional Function

I		Time control			0-10V/PWM Dim/Resistor
	"X"	(Adjustable current + half power reduction for 6 hours by default: suffix F)	ADJ Current (suffix A)	0-10V/PWM Dim/Resistor (suffix B)	+AUX 12V (suffix C)
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■ ELECTRICAL SPECIFICATION

◆ Input performance:

Parameter	Min.	Тур.	Max.	Notes
Voltage Range	90Vac	100-277Vac	305Vac	-
Frequency Range	47Hz	50/60Hz	63Hz	-
AC Current	-	-	1.4A	-
Inrush Current	-	-	70A	At 230Vac input,25°C cold start
PF.	0.95	0.97	-	A. 220V
THD.	-	10%	15%	At 230Vac input, full load

◆ Output performance:

◆ Output performance:					
Parameter	Min.	Тур.	Max.	Notes	
Voltage Range	54VDC	-	90VDC	-	
Current range Regulation	0.8A	-	1.5A	-	
Rated Power	-	-	100W	Output Voltage≥66V	
Over Voltage	100V		110V	-	
Efficiency	≥90%	91%	-	Measured at full load and 230Vac input	
Current Tolerance	-5%	-	+5%	-	
Line Regulation	-5%	-	+5%	-	
Load Regulation	-3%	-	+3%	-	
Current Ripple	-	±50%	<±55%	-	
Turn-on Delay Time	-	600mS	<1S	Measured at full load and 230Vac input	
Short Circuit Protection	-	-	2W	Hiccup mode,recovers automatically after fault condition is removed	
Over-temperature protection	-	90℃	-	Shell Tc point temperature, Drop current mode, the current automatically recovers after over temperature release	
Under Voltage Protection	100Vac	105Vac	108Vac	After the input voltage is reduced to the under voltage point, Reduce output current by 50%, resume work after the AC voltage is normal	



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Environment:

Parameter	Min.	Тур.	Max.	Notes
Working TEMP	-40°C	+25℃	+60℃	-
Storage TEMP	-40°C	+25℃	+85℃	-
Working Humidity	20% RH	-	90% RH	-
Storage Humidity	10% RH	-	90% RH	-
Maximum shell TEMP	-	-	+90℃	-

■ Safety and EMC:

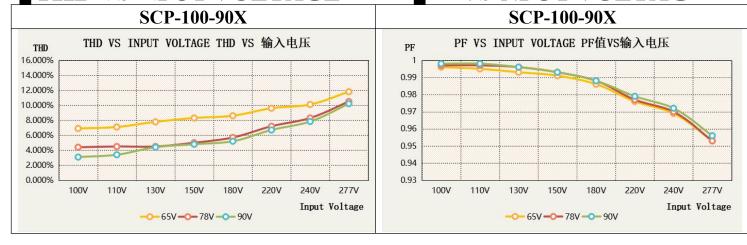
Withstand voltage	I/P - FG:1.75KVAC,I/P-O/P:3.75KVAC, I/P-dimming: 3.75KVAC,O/P-dimming: 0.5KVAC	
Isolation Resistance	$\geq 10 M\Omega$ at I/P - FG 500VDC Test	
Leakage Current	<0.75mA/277Vac	
Earthing Resistance	<0.1Ω / 25A 1 min	
Surge	Differential mode: L-N +/- 6KV (2 ohm), common mode:L, N-E +/- 10KV (12 ohm)	
Conducted Electromagnetic Interference	-	
Radiated electromagnetic interference	-	

NOTE:

- 1)All parameters NOT specially mentioned are measured at 230Vac $\,$ (50Hz) input, rated load and 25 $^{\circ}$ C of ambient temperature.
 - 2) Tolerance:includes set up tolerance,lineregulation and load regulation.

THD VS INPUT VOLTAGE

■ PF VS INPUT VOLTAGE





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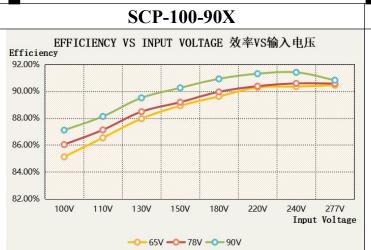
REV

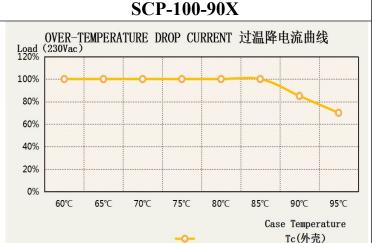
V3.0

EFFICIENCY VS INPUT VOLTAGE

OVER-TEMPERATURE DROP CURRENT

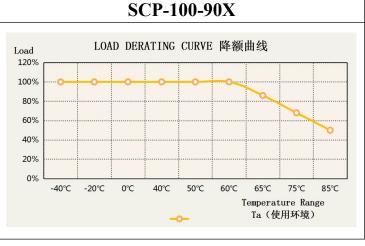
LED INTEGRATED SPECIAL DRIVER

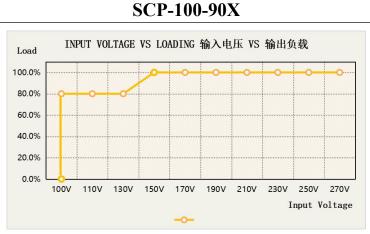




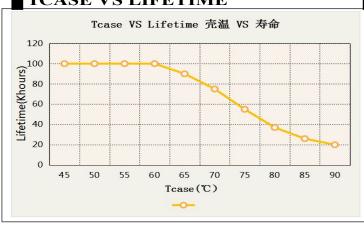
LOAD DERATING CURVE

INPUT VOLTAGE VS LOADING

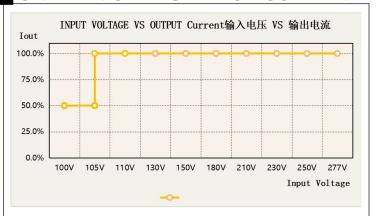




TCASE VS LIFETIME



UNDER-VOLTAGE DROP CURRENT



THE DIMMING CURVE

Three-in-one dimming function (Type B/Type C):

- Connect a 100K resistor or 0-10V DC voltage or PWM signal between DIM+ (blue line) and DIM-(white line) to adjust the value of the output constant current
- Output current of dimming port: 100uA (typical value)
- Auxiliary source function (Type C): 12V auxiliary group power output, the maximum output current is 250mA



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Product Series

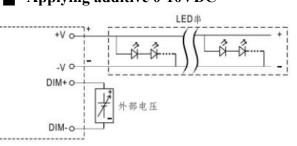
SCP-100-90X SERIES

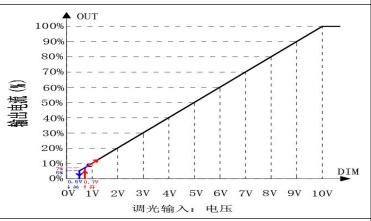
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0-10V Dimming

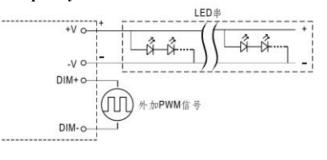
Applying additive 0-10VDC

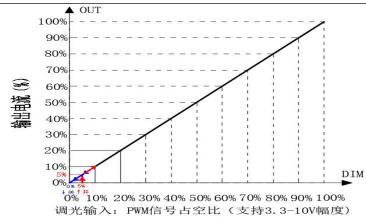




PWM Dimming (PWM frequency 10V 1KHZ)

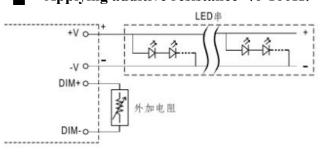
Applying additive10V PWM signal (frequency 0.2K-10K)

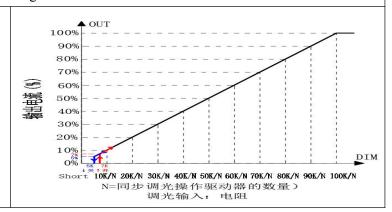




Resistor dimming (100K)

Applying additive resistance (0-100K)





MECHANICAL SPECIFICATION & PACKING:

Bare Plate Dimension	114*44*26mm(L*W*H)
Final Dimension	143*49*33mm(L*W*H)
Product Weight	420g



Product Type

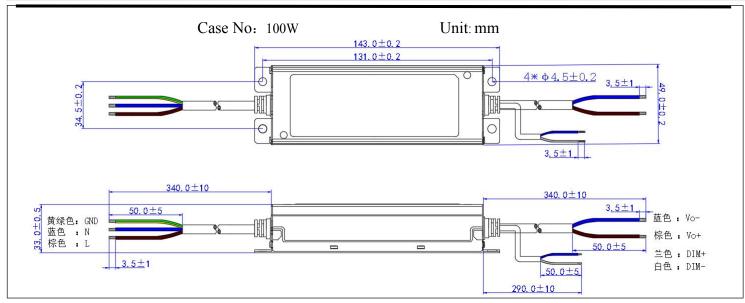
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Nameplate Dimension: 84*31mm Style: sticker SCP-100-90A SCP-100-90B SUNCOM SCP-100-90A (型号)LED控制装置 SUNCOM SCP-100-90B (型号)LED控制装置 INPUT 输入端 Vin(输入):100-277V~1.4A 50/60Hz Vout(输出):54-90V == 800-1500mA OUTPUT 输出端 Vin(输入):100-277V~1.4A 50/60Hz Vout(输出):54-90V == 800-1500mA OUTPUT 输出端 Max.Uout(最大电压): 110V === η:≥91% Max.Uout(最大电压): 110V == (BU蓝)Vo - 〇 O ACN(BU蓝) O ACN(BU蓝) (BU蓝)Vo - 〇 •tc ta:60°C •tc Rated Power(額定功率):100W ta:60°C tc:90°C Rated Power(額定功率):100W O ACL(BN棕) O ACL(BN棕) (BU蓝)DIM + 〇 (BN棕)Vo + 〇 广东新创电源科技有限公司 www.gdsuncom.com GUANGDONG SUNCOM POWER TECHNOLOGY CO.,LTD 广东新创电源科技有限公司 www.gdsuncom.com GUANGDONG SUNCOM POWER TECHNOLOGY CO.,LTD ta:50°C@Vin100-200V~ ⊕ (GN绿/YL黄) ⊕ (GN绿/YL黄) (WH白)DIM - 〇 X MADE IN CHINA X 8 **IP65** MADE IN CHINA (8) **IP65 SELV SELV** SCP-100-90C SUNCOM SCP-100-90C (型号)LED控制装置 OUTPUT 输出端 Vin(输入):100-277V~1.4A 50/60Hz Vout(输出):54-90V == 800-1500mA (BU蓝)Vo - 〇 Max.Uout(最大电压): 110V === η:≥91% O ACN(BU蓝) (BN棕)Vo + 〇 ta:60°C Rated Power(额定功率):100W O ACL(BN棕) (VT紫)DIM + ○ (GY灰) DIM-/12V - 〇 广东新创电源科技有限公司 www.gdsuncom.com GUANGDONG SUNCOM POWER TECHNOLOGY CO.,LTD ta:50°C@Vin100-200V-⊕ (GN绿/YL黄) (PK粉) 12V + 〇 X **MADE IN CHINA** 8 **IP65** SELV