

Product Type

LED INTEGRATED SPECIAL DRIVER

**Product Series** 

SCP-150-56X SERIES

REV

V3.0

## SPECIFICATION FOR APPROVAL

CUSTOMER0:			
MODEL NO.0:		SCP-150-56X SERIES	
Rev.		V3.0	
SAMPLE DATE:			
		Customer Confirmation	
TESTED BY		CHECKED BY	APPROVED BY
NOTES:			
Please return to us	s one copy o	f "SPECIFICATION FOR APPROVAL" with	h you approved signature.
SUNCOM Confirmation			
TESTED BY		CHECKED BY	APPROVED BY

Guangdong SUNCOM Power Technology Co.,Ltd.

No.1 of Yongyi 3rd Road Henglan Town Zhongshan Guangdong China. Post code:528478

TEL:0760-22326609

28168136

FAX:0760-87600929



Product Type	LED INTEGRATED SPECIA	L DRIVER	
Product Series	SCP-150-56X SERIES	REV	V3.0

# **■ CHANGE HISTORY**

DATE	CAUSESOFCHANGE	REV.	APPROVED
2021.10.15	Initial Version	V1.0	
2022.6.6	Adding case Temperature / lifespan curve diagram	V2.0	
2023.5.22	Update label and add under voltage protection	V3.0	



Product Type	LED INTEGRATED SPECIA	L DRIVER	
Product Series	SCP-150-56X SERIES	REV	V3.0

## **♦** 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 @42V	THD. (Typ)	PF. (Typ)
SCP-150-56X	150W	100-277Vac	28-56V	2.4A-4.5A	3.2A	9.2%	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

"X"	Time control (Adjustable current + half power reduction for 6 hours by default: suffix F)	ADJ Current (suffix A)	0-10V/PWM Dim/Resistor (suffix B)	0-10V/PWM Dim/Resistor +AUX 12V ( suffix C)
В			$\sqrt{}$	

NOTE: When using the B/C version, it is recommended that the LED voltage is above 30V to prevent the dimming shutdown from failing to turn off the LED.



Product Type	LED INTEGRATED SPECIA	L DRIVER	
Product Series	SCP-150-56X SERIES	REV	V3.0

## **■** ELECTRICAL SPECIFICATION:

# ◆Input performance:

Parameter	Min.	Тур.	Max.	Notes
Voltage Range	90Vac	100-277Vac	305Vac	-
Frequency Range	47Hz	50/60Hz	63Hz	-
AC Current	-	-	2.0A	-
Inrush Current	-	-	70A	At 230Vac input,25℃ cold start
PF.	0.95	0.97	-	
THD.	-	9.2%	15%	At 230Vac input, full load

♦Output performance

Parameter	Min.	Тур.	Max.	Notes
Voltage Range	28VDC	-	56VDC	-
Current range Regulation	2.4A	-	4.5A	-
Rated Power	-	-	150W	Output Voltage > 33V
Over Voltage	63V		70V	-
Efficiency	≧89%	89.3%	-	Measured at full load and 230Vac input
Current Tolerance	-5%	-	+5%	-
Line Regulation	-5%	-	+5%	-
Load Regulation	-3%	-	+3%	-
Current Ripple	-	±49%	<±50%	-
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.



Product Type	LED INTEGRATED SPECIA	L DRIVER	
Product Series	SCP-150-56X SERIES	REV	V3.0

**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℃	-

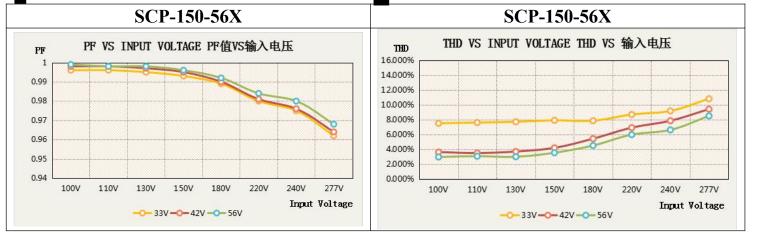
## ■ Safety and EMC:

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	$\geq 10 \text{M}\Omega$ 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
Conducted Electromagnetic Interference	-
Radiated electromagnetic interference	-

#### NOTE:

- 1)All parameters NOT specially mentioned are measured at 230Vac (50Hz) input, rated load and 25 °C of ambient temperature.
- 2) Tolerance:includes set up tolerance, line regulation and load regulation.

# THD VS INPUT VOLTAGE PF VS INPUT VOLTAGE





Product Type
Product Series

LED INTEGRATED SPECIAL DRIVER

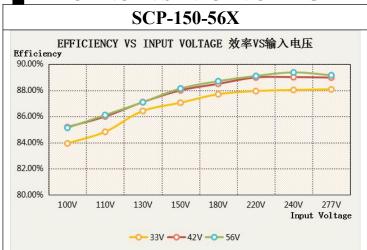
SCP-150-56X SERIES

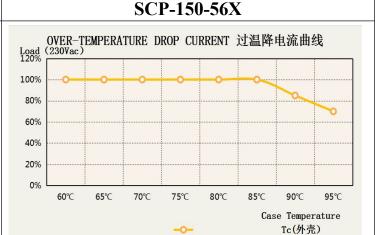
REV

V3.0

#### EFFICIENCY VS INPUT VOLTAGE

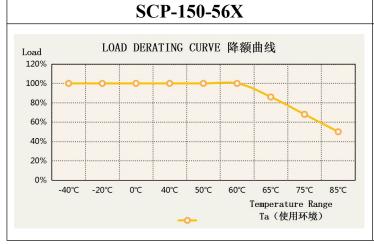
## OVER-TEMPERATURE DROP CURRENT

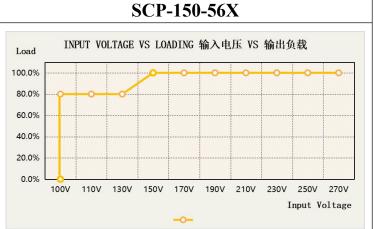




#### LOAD DERATING CURVE

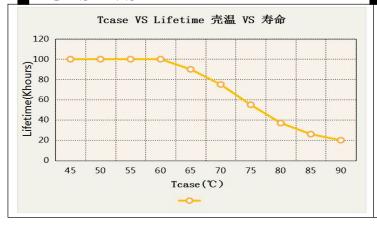
## **■ INPUT VOLTAGE VS LOADING**

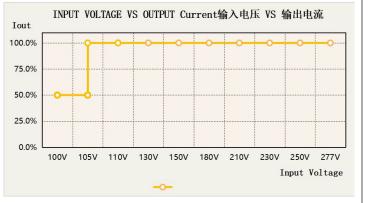




## TCASE VS LIFETIME

# UNDER-VOLTAGE DROP CURRENT







Product Type	LED INTEGRATED SPECIAL DRIVER		
Product Series	SCP-150-56X SERIES	REV	V3.0

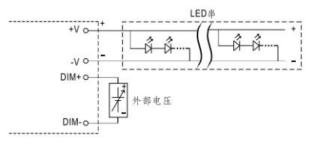
#### THE DIMMING CURVE

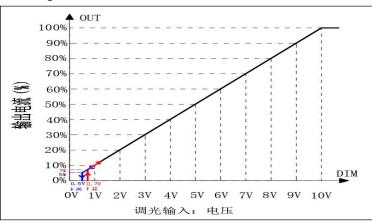
Three-in-one dimming function (Type B/Type C):

- 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

#### 0-10V Dimming

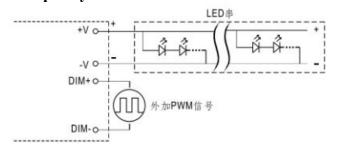
# **Applying additive 0-10VDC**

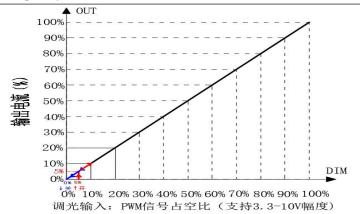




#### PWM Dimming (PWM frequency 10V 1KHZ)

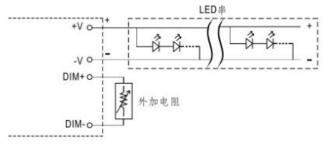
# Applying additive 10V PWM signal (frequency 0.2K-10K)

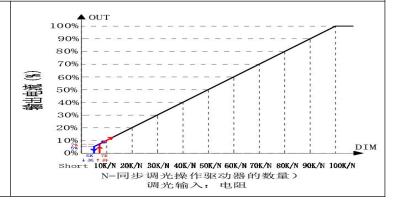




#### Resistor dimming (100K)

## Applying additive resistance (0-100K)







Product Type

LED INTEGRATED SPECIAL DRIVER

**Product Series** 

SCP-150-56X SERIES

REV

V3.0

#### **MECHANICAL SPECIFICATION & PACKING:**

