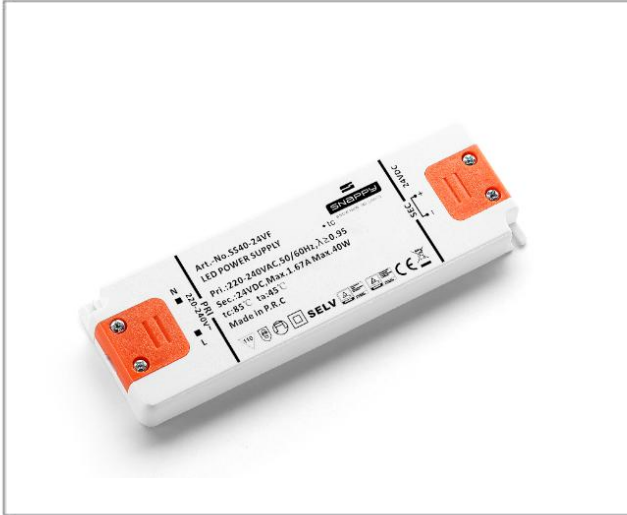


# Constant Voltage LED Power Supply

SS40-12VF

SS40-24VF



## Product description

The SS40 series is an indoor ultra-thin constant voltage LED driver with a rated input voltage range of 220–240Vac, achieving a maximum conversion efficiency of up to 87%. It features a fanless design and operates within a natural convection cooling case temperature range of -20°C to +45°C. The series offers an ultra-high power factor, extremely low total harmonic distortion, low standby power consumption, and comprehensive protection functions, which not only significantly enhance product reliability but also ensure a long product lifecycle. Designed specifically for LED lighting applications, this series is intended for indoor use and is suitable for a wide range of environments in almost all indoor settings where LED luminaires can be installed. It complies with global safety standards for lighting equipment, ensuring safety for both users and the lighting system during installation.

## Standards

EN61347-1  
EN61347-2-13  
EN61547  
EN55015  
EN61000-3-2  
EN61000-3-3  
EN62384  
EN62493

## Characteristics

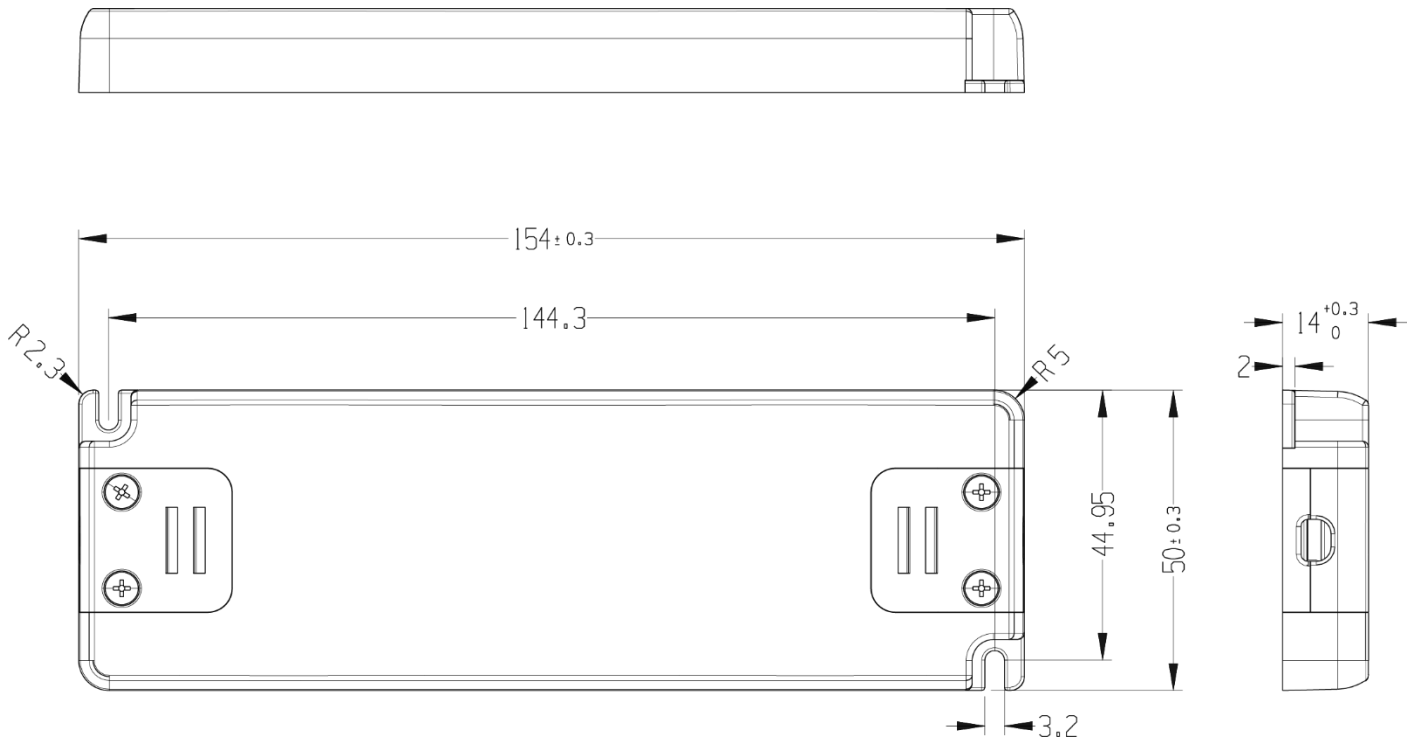
- AC Input range (220-240VAC)
- IP20
- Suitable for dry indoor environments
- Protection type: short circuit/over temperature/over voltage/over load Protection
- Plastic case
- Comply with world lighting equipment safety regulations
- Plastic case
- 5 years warranty

## Specifications

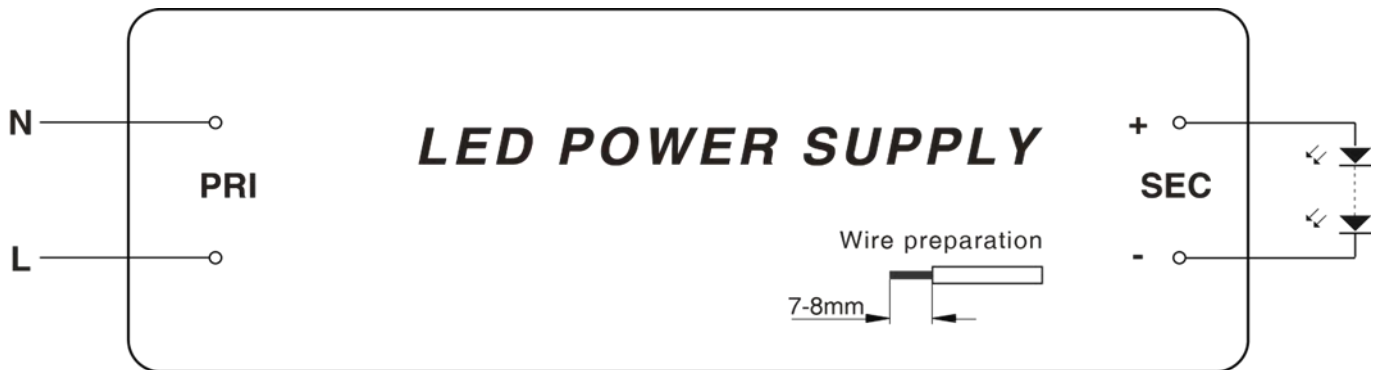
Model		SS40-12VF	SS40-24VF
Output	Turn on time(S)	<0.5	
	Output power(W)	40	
	Output voltage(V)	12	24
	Output voltage tolerance	≤±5%	
	Ripple voltage	3%	
	Line Regulation	1%	
	Load Regulation	2%	
	Working current range(A)	0-3.33	0-1.67
	SVM	<0.4	
	Pst	<1.0	
	Dimming type	-	
	Dimming range	-	
Input	Rated DC supply voltage(Vdc)	-	
	Rated supply voltage(Vac)	220-240	
	Voltage range(Vac)	198-264	
	Line frequency(Hz)	50/60	
	Input current(A)	0.25@230Vac	
	Efficiency	86%@full load	87%@full load
	Average efficiency	85%	86%
	No load power consumption(W)	≤0.5W	
	Power factor	0.95@full load	
	Displacement factor	0.95	
	Total harmonic distortion(typ.)	10%	
	Inrush current(Ipk)	30A/110μS	
	Leakage current	0.7mA	
Protection	Short circuit protection	hiccup mode, restart automatically after fault correction.	
	Over load protection	exceed maximum rated load times 1.3 hiccup mode, restart automatically after fault correction.	
	Over voltage protection	hiccup mode, restart automatically after fault correction.	
	Over temperature protection	hiccup mode, restart automatically after fault correction	
	Surge capacity	L-N: 1KV	
	Withstand voltage	Input-Output: 3000V/5mA/1min	
Ambient and Life	Ta(°C)	-20...45	
	Tc max.(°C)	max.85	
	Storage Temperature(°C)	-40...85	

	Ambient humidity range	5%...85%RH, Not condensing
	Nominal life-time(hrs)	50'000@Ta35°C
<b>Other</b>	Dimensions (L×W×H)(mm)	154*50*14
	Weight(g)	140
	Casing material	plastics
	Housing colour	white
	Type of protection	IP20
	Protection class	Class II
	Certificate	
<b>Note</b>	<p>1.Tolerance:includes set up tolerance, line regulation and load regulation.</p> <p>2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs.</p> <p>3.Calculate the model's average efficiency for each test voltage by testing at 100%, 75%, 50%, and 25% of rated current and then computing the simple arithmetic average of these four values.</p> <p>4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.</p> <p>5.The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p>	

## Dimensions(mm)



## Wiring Diagram



AC	Terminal block for H03VVH2-F 2x0.75mm <sup>2</sup>
DC	Terminal block for H03VVH2-F 2x0.75mm <sup>2</sup>

# Electrical curves

Fig. 1 Output load-Temperature curve

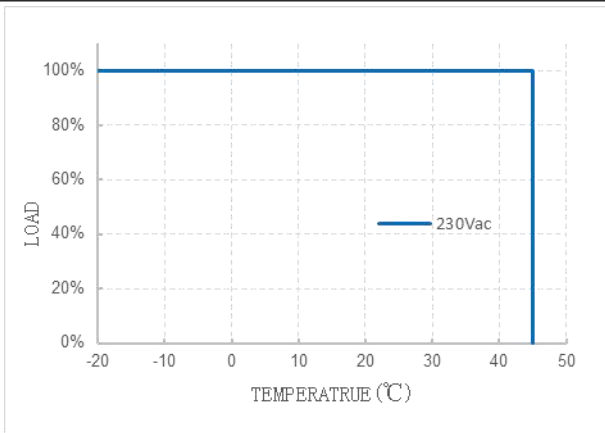


Fig. 2 Static characteristic curve

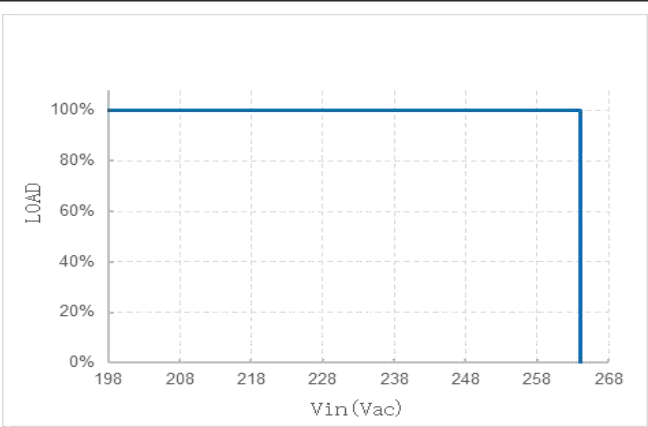


Fig. 3 I-V curve

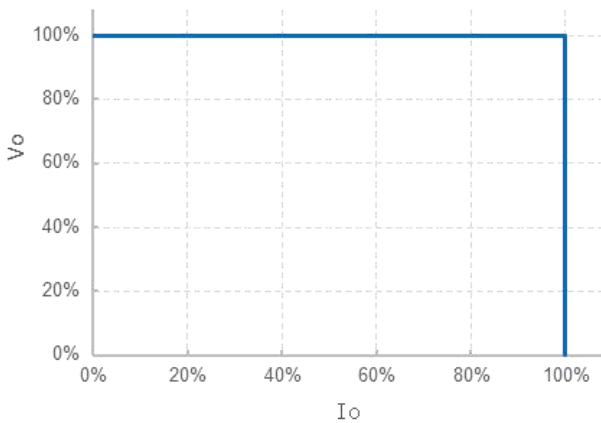


Fig. 4 Power factor characteristic curve

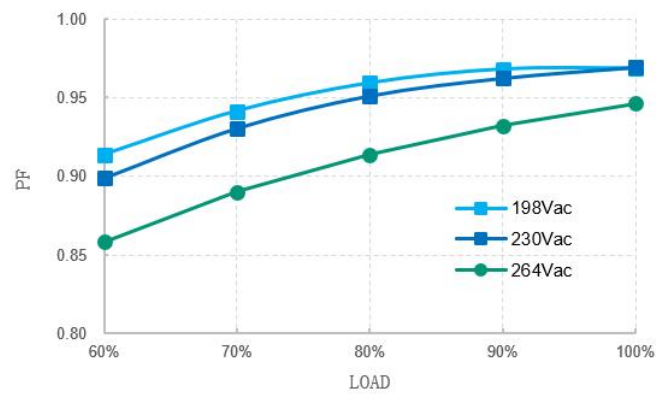


Fig.5 Total harmonic distortion curve (THD)

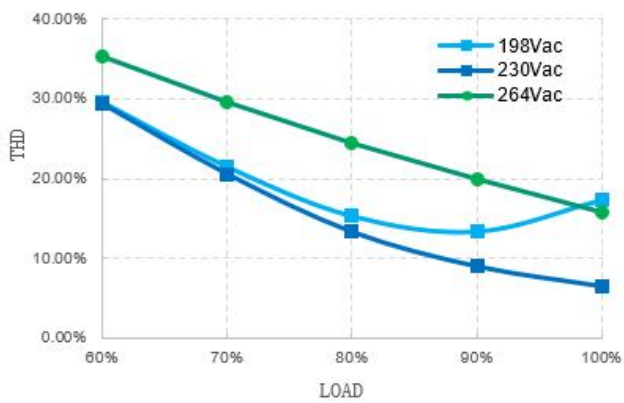
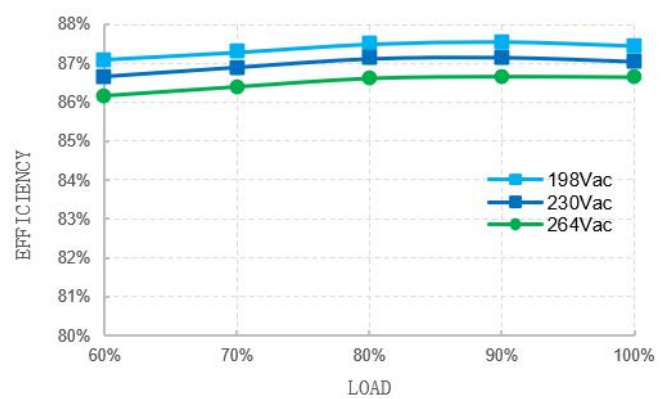


Fig.6 Efficiency-Load curve



## MCBS

Model \ MCBS	B10	B13	B16	B20	C10	C13	C16	C20
SS40-12/24VF	20	26	32	40	24	31	38	48

## Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SS40-12/24VF			

## Revision history

Date	Rev.	Remark
2025.10.22	A2	The datasheet has been upgraded to a new version