

# Constant Current LED Power Supply

## SE15-350IF/500IF/700IF



### Product description

SE15-IF is the indoor super slim constant current LED driver. Its input voltage range is 180-264VAC, with a maximum conversion efficiency of 86.5%, working at -20° C~+45° C ambient temperature range, with high power factor and low total harmonic distortion, can pass the EN61000-3-2 harmonic standard, low standby power consumption and all-round protection functions, which not only greatly improves the reliability of the product, but also ensures the product life cycle. This series is designed for LED lighting, and applied to indoor bathroom mirror lamp and other lighting fixtures.

### Standards

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

### Characteristics

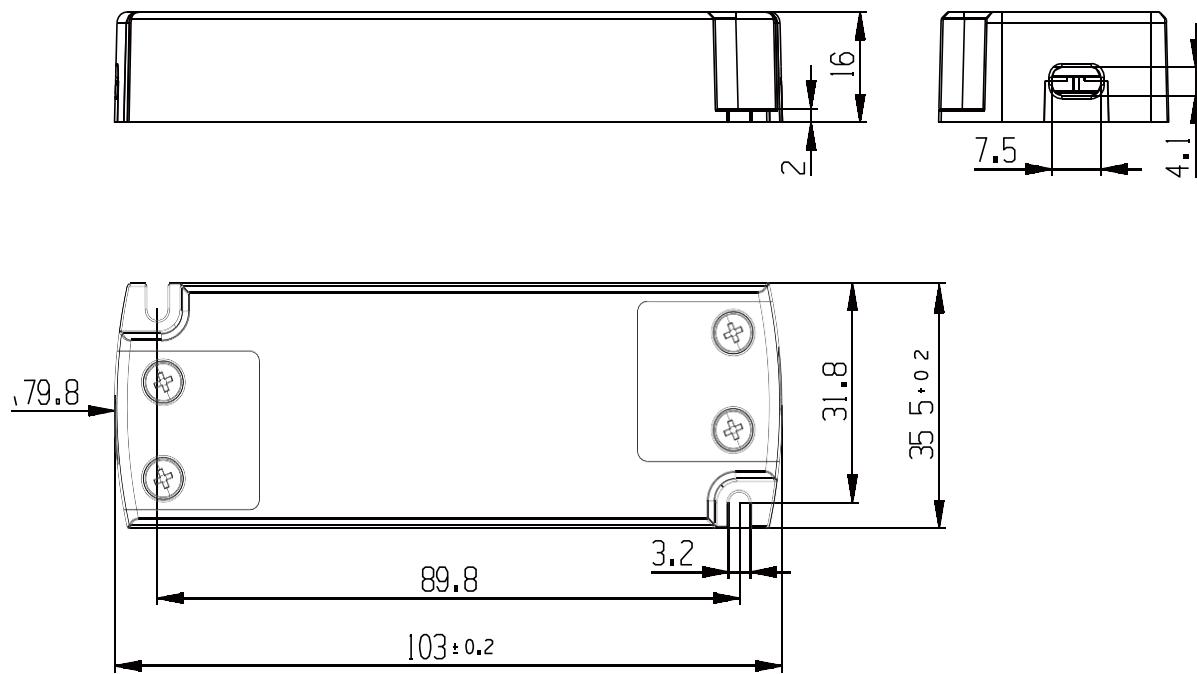
- European AC input range (200-240VAC)
- Waterproof IP20
- Suitable for dry indoor environment
- Protection: Short circuit / Over load / Over-voltage protection
- Compliance to worldwide lighting safety regulations
- Warranty: 5 years

## Specifications

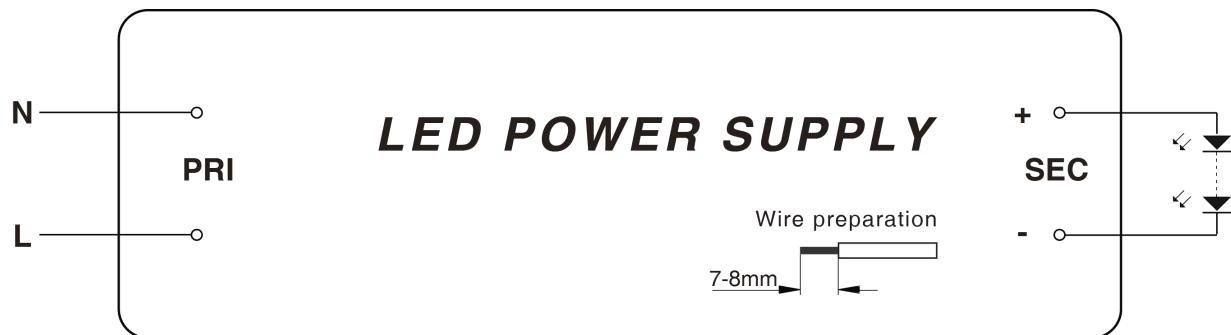
Model		SE15-350IF	SE15-500IF	SE15-700IF
Output	turn on time(S)	<0.5	<0.5	<0.5
	output power(W)	15	15	15
	output current(A)	0.35	0.50	0.70
	output current tolerance	≤±8%	≤±8%	≤±8%
	No load output voltage (V)	≤60	≤42	≤32
	ripple current(mA)	30	45	65
	Line Regulation	3%	3%	3%
	Load Regulation	5%	5%	5%
	working voltage range(V)	21.4-42.8V	15-30V	10.7-21.4V
	SVM	0.1	0.1	0.1
Input	Pst	0.1	0.1	0.1
	rated DC supply voltage(Vdc)	NA	NA	NA
	rated supply voltage(Vac)	200-240	200-240	200-240
	voltage range(Vac)	180-264	180-264	180-264
	line frequency(Hz)	50/60	50/60	50/60
	input current(A)	0.12	0.12	0.12
	efficiency	86.5%@full load	85.5%@full load	85.5%@full load
	average efficiency(TYPE) 3	86%	85%	84.2%
	no load power consumption(W)	≤0.5W	≤0.5W	≤0.5W
	power factor	0.83@full load	0.83@full load	0.83@full load
	Displacement factor	0.90	0.90	0.90
	THD(typ.)	42%	42%	42%
Protection	inrush current(Ipk)	20A/180uS	20A/180uS	20A/180uS
	Leakage current	0.7@240Vac 60Hz	0.7@240Vac 60Hz	0.7@240Vac 60Hz
	short circuit protection	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.
	over load protection	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.
	Over voltage protection	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.
Over temperature protection	surge capacity	--	--	--
	Withstand voltage	L-N: 500V	L-N: 500V	L-N: 500V
	Ta(C)	-20...45(See derating curve)	-20...45(See derating curve)	-20...45(See derating curve)
	Tc max.(C)	max.80	max.80	max.80

<b>Ambient and Life</b>	Storage Temperature(C)	-40...85	-40...85	-40...85
	ambient humidity range	5%...85%RH, Not condensing	5%...85%RH, Not condensing	5%...85%RH, Not condensing
	nominal life-time(hrs)	50'000@Ta	50'000@Ta	50'000@Ta
	dimensions (L×W×H)(mm)	103*35.5*16	103*35.5*16	103*35.5*16
	weight(g)	55	55	55
	casing material	plastic	plastic	plastic
<b>Other</b>	housing colour	white	white	white
	type of protection	IP20	IP20	IP20
	protection class	class II	class II	class II
	certificate			
<b>Note</b>	1.Tolerance:includes set up tolerance, line regulation and load regulation. 2.Tested at full load,230Vac. Refer to "Power Factor" and "EFFICIENT"curve graphs. 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. 4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature. 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.			

## Dimensions(mm)



## Wiring Diagram



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

## Electrical curves

1.SE15-350IF

Fig. 1 Output load-Temperature curve

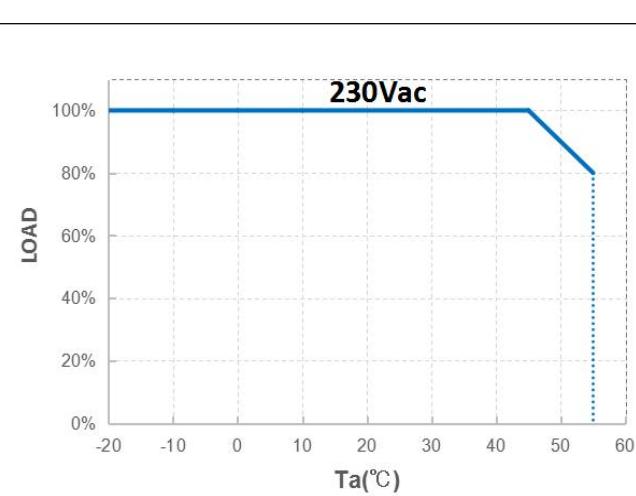


Fig. 2 Static characteristic curve

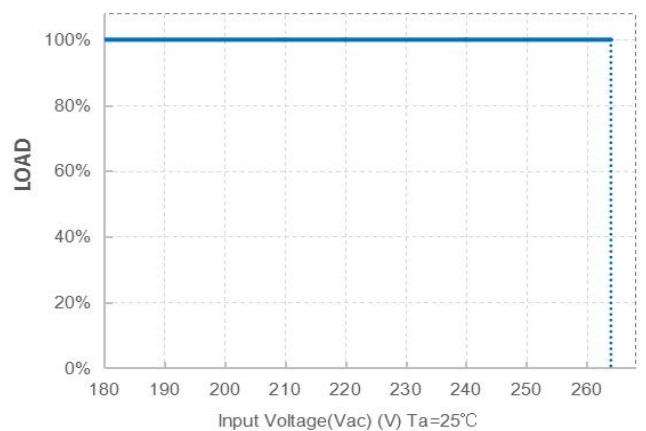
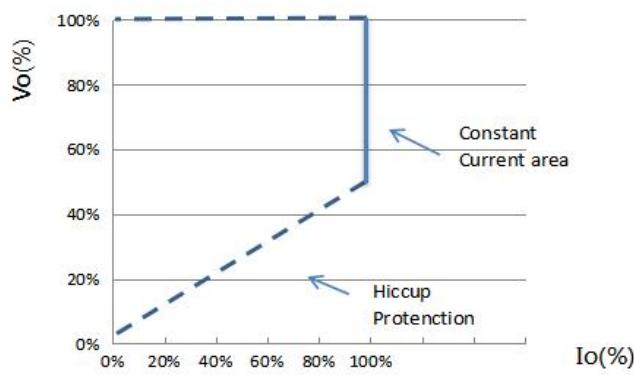
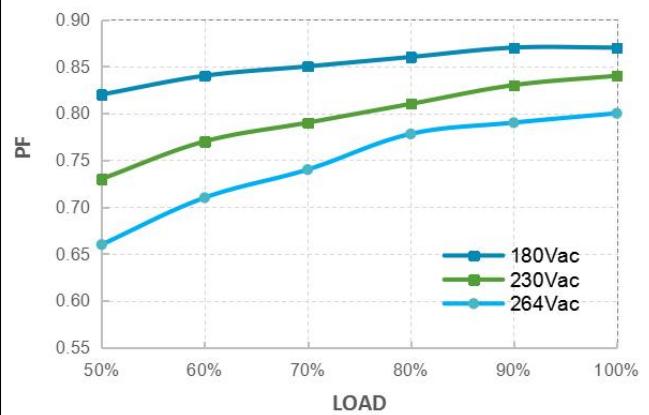


Fig. 3 I-V curve

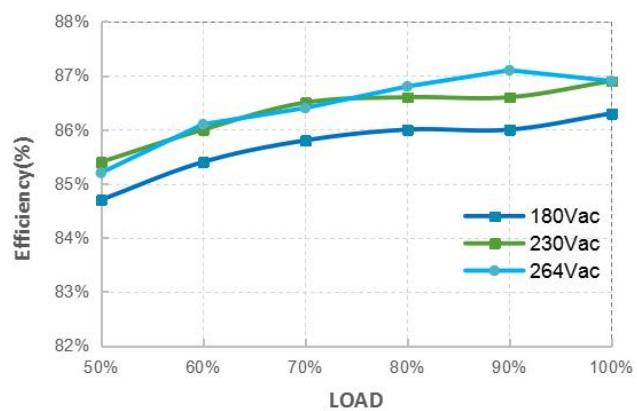
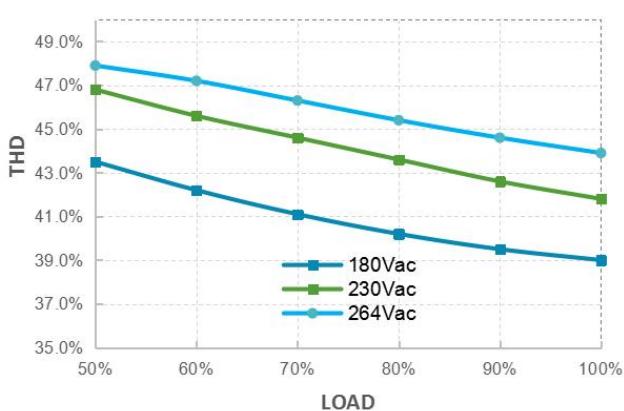
Fig. 4 Power factor characteristic curve



**Fig.5 Total harmonic distortion curve (THD)**

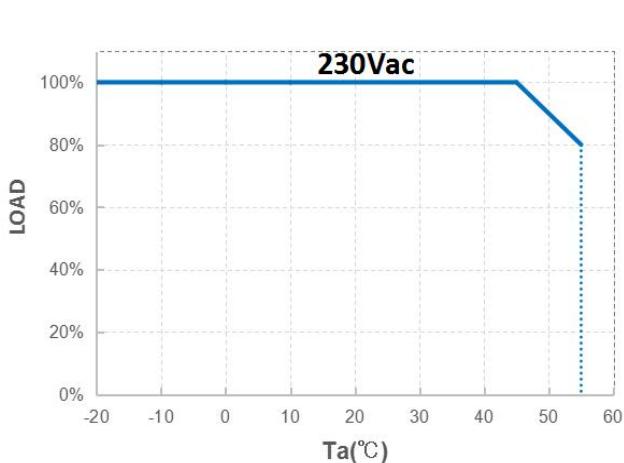


**Fig.6 Efficiency-Load curve**



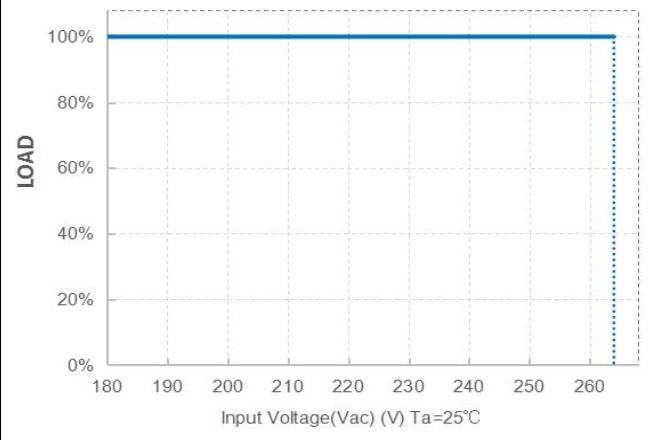
## 2.SE15-500IF

**Fig. 1 Output load-Temperature curve**

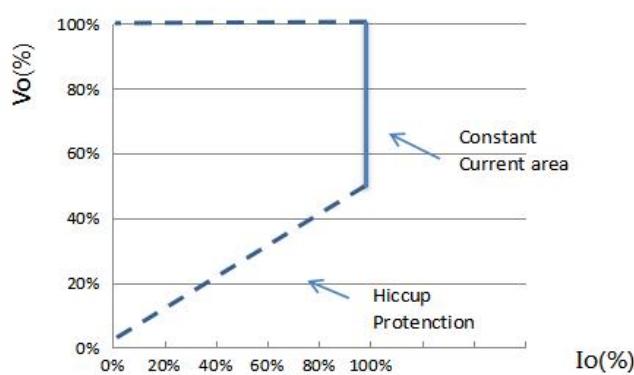


**Fig. 3 I-V curve**

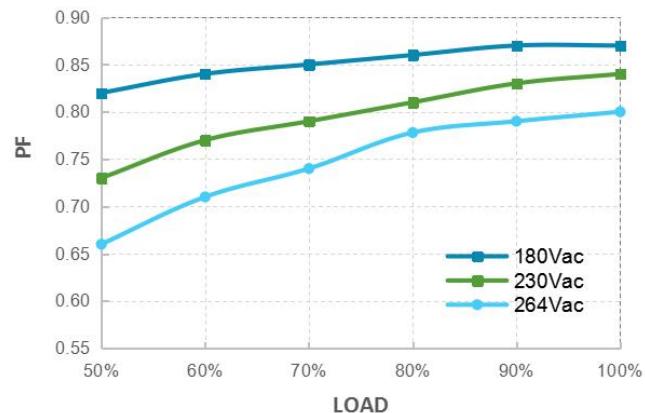
**Fig. 2 Static characteristic curve**



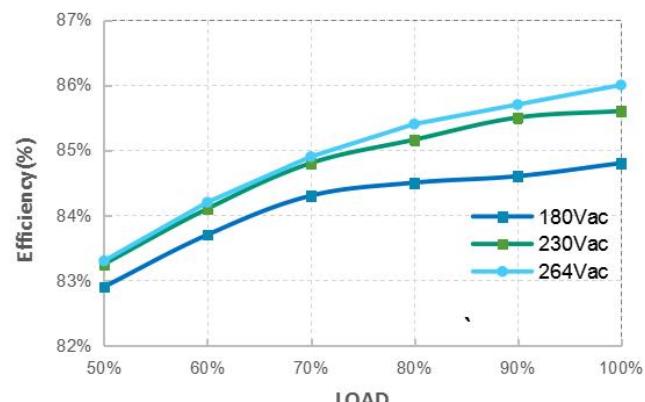
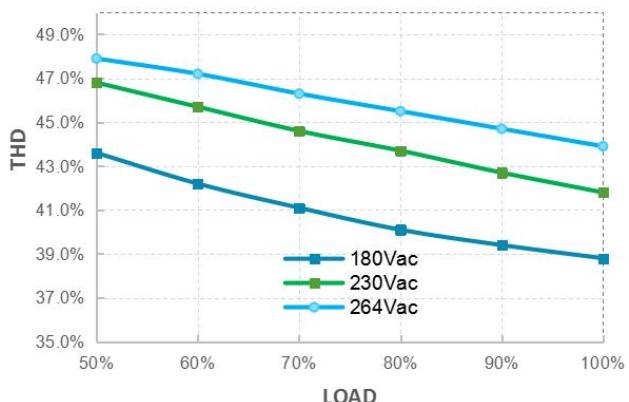
**Fig. 4 Power factor characteristic curve**



**Fig.5 Total harmonic distortion curve (THD)**

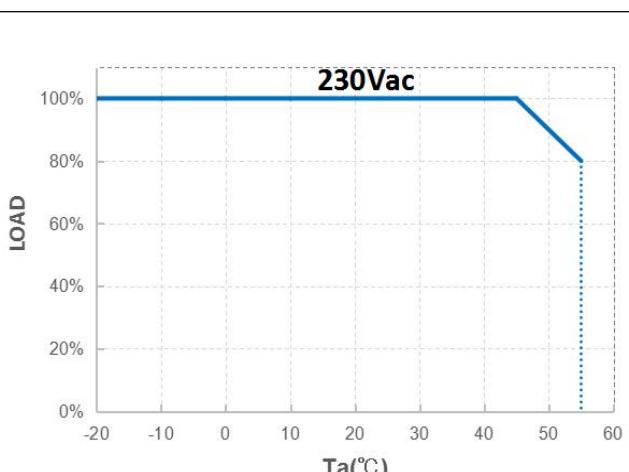


**Fig.6 Efficiency-Load curve**



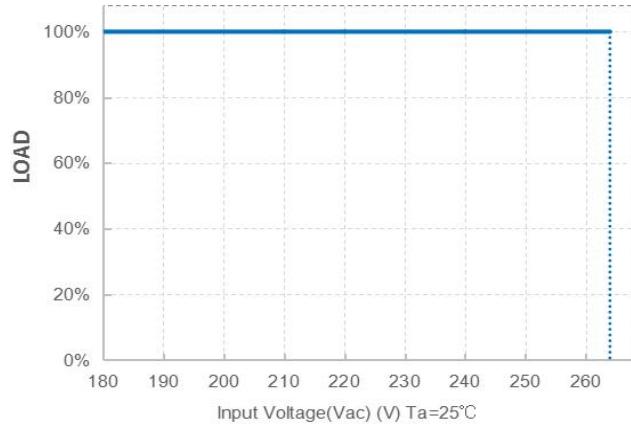
### 3.SE15-700IF

**Fig. 1 Output load-Temperature curve**

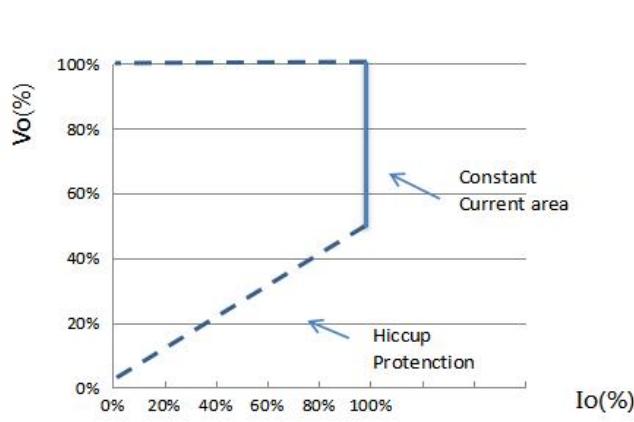


**Fig. 3 I-V curve**

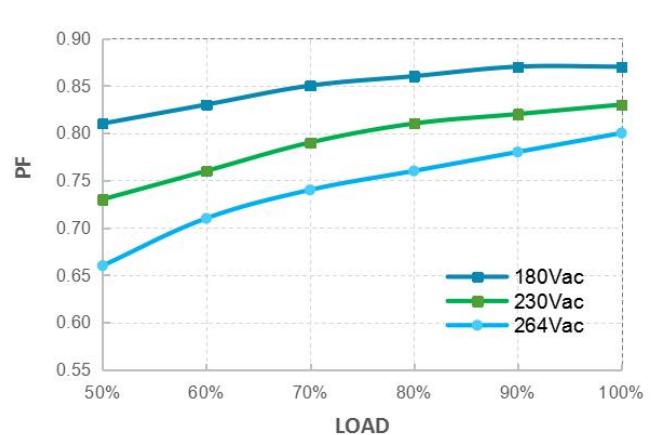
**Fig. 2 Static characteristic curve**



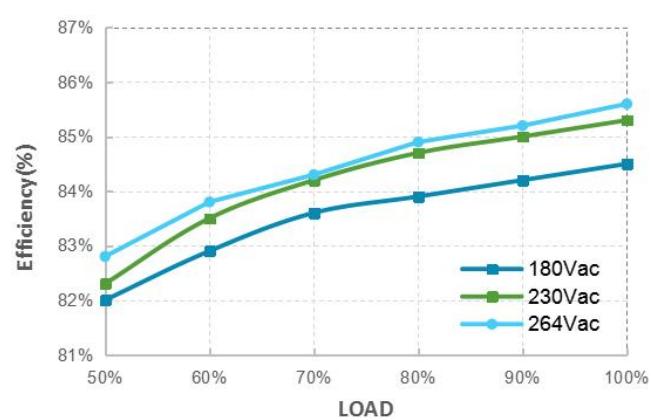
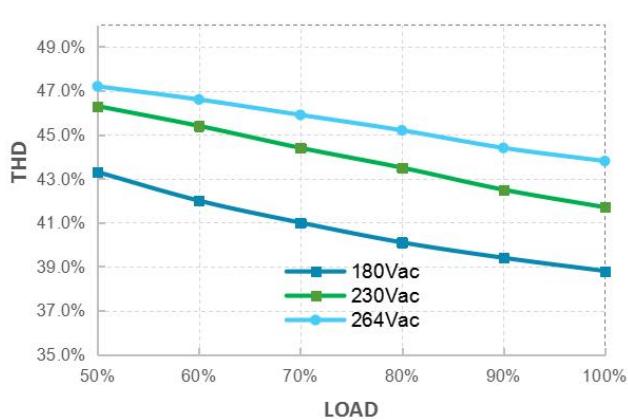
**Fig. 4 Power factor characteristic curve**



**Fig.5 Total harmonic distortion curve (THD)**



**Fig.6 Efficiency-Load curve**



## MCBS

Model \ MCBS	B10	B13	B16	B20	C10	C13	C16	C20
SE15-350IF	41	54	66	83	33	43	53	66
SE15-500IF	41	54	66	83	33	43	53	66
SE15-700IF	41	54	66	83	33	43	53	66

## Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SE15-350IF			
SE15-500IF			
SE15-700IF			

## Revision history

Date	Rev.	Remark
2023.3.2	A0	Initial release.