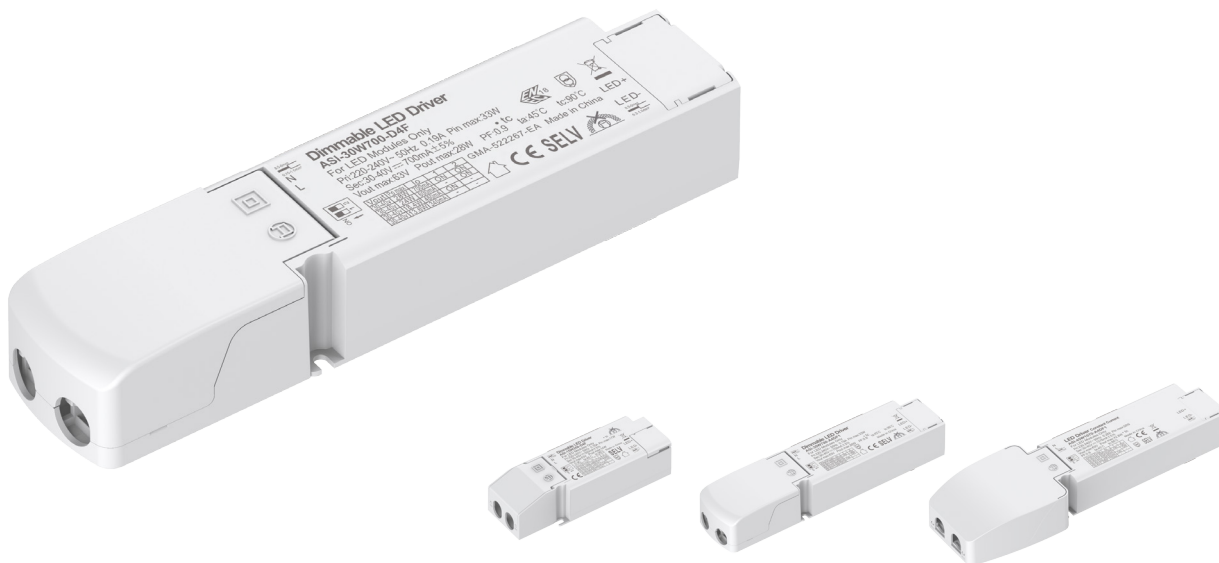


# Dimmable ASI Series LED Driver

ASI-XXWXXX-D4F



## Product description

ASI series is a triac dim and wattage changeable led driver. It is compatible well with various dimmers and has strong resistant to surge. Adopting fast connection terminal box design makes it loop in and loop out easily with 0.75-2.5mm<sup>2</sup> cable. With a focus on application-related functions, the LED Driver range offers good quality and high cost performance that ensures reliable operation of LED module.

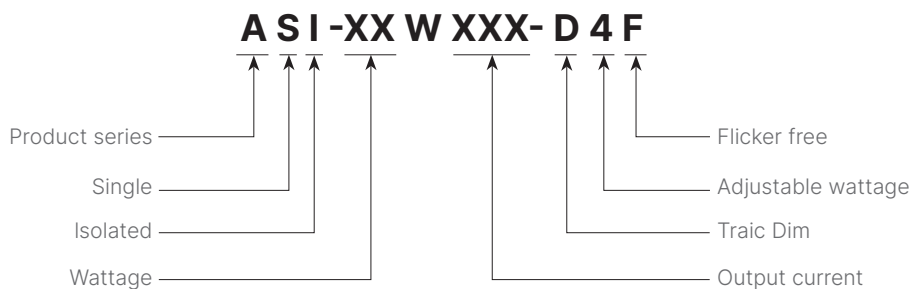
## Features

- Flicker free
- Constant current led driver
- Triac dim and wattage changeable with DIP switch
- Applicable for leading & trailing edge dimmer
- Low noise during operation, smooth dimming effect
- Nominal life-time up to 50,000h
- For Class I and Class II led light



## Application

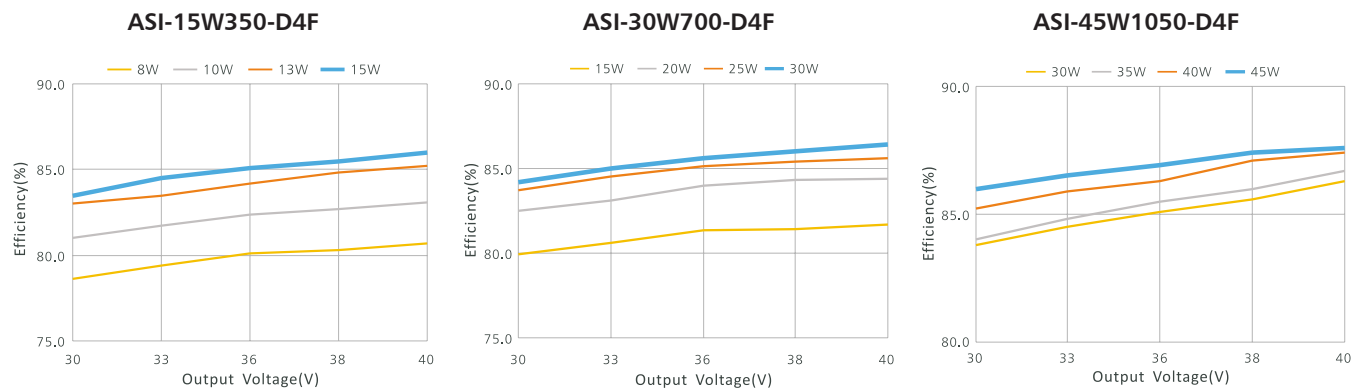
Widely used in all external led light such as downlight, ceiling light, spots LED linear and batten etc.



# Specification

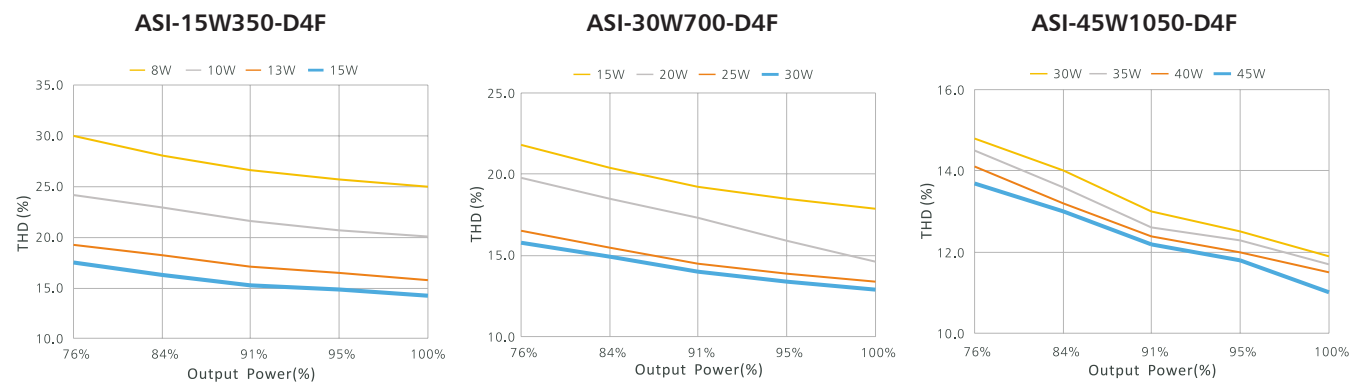
Model		ASI-15WXXX-D4F				ASI-30WXXX-D4F				ASI-45WXXX-D4F		
		ASI-8W180-D4F	ASI-10W230-D4F	ASI-13W290-D4F	ASI-15W350-D4F	ASI-18W430-D4F	ASI-19W470-D4F	ASI-25W590-D4F	ASI-30W700-D4F	ASI-35W840-D4F	ASI-40W970-D4F	ASI-45W1070-D4F
Input	Input POWER	8/7/6/5W	10/8/6/5W	13/10/8/6W	15/13/10/8W	18/15/11/8W	19/18/16/15W	25/22/18/15W	30/25/20/15W	35/30/25/20W	40/35/30/25W	45/40/35/30W
	Input Voltage	AC200-264V				AC200-264V				AC200-264V		
	Rated Input Voltage(V)	AC220-240V				AC220-240V				AC220-240V		
	DC Input Voltage(V)	DC176-280V				DC176-280V				DC176-280V		
	Frequency	50Hz				50Hz				50Hz		
	Input Current	≤0.09A				≤0.17A				≤0.26A		
	Rated Input Current	≤0.08A				≤0.16A				≤0.23A		
	Power Factor (typ)	0.9C				0.9C				0.9C		
	"Total harmonic distortion(THD)"	<20%@230V				<20%@230V				<20%@230V		
	Efficiency(typ)	≥83%(@230VAC full load)				≥85%(@230VAC full load)				≥86%(@230VAC full load)		
	Inrush current(Typ.)	12.5A/311.2us				12.5A,80us				13.4A,45.6us		
	Leakage current	<0.7mA@AC230V				<0.7mA@AC230V				<0.7mA@AC230V		
	No load wattage	<1W@230V				<1W@230V				<1W@230V		
Output	Output Voltage range	DC30-40V				DC30-40V				DC30-40V		
	Rated output current	180/150/130/100mA	230/190/130/100mA	290/230/180/120mA	350/300/230/180mA	430/350/240/170mA	470/440/370/340mA	590/510/430/350mA	700/600/460/340mA	840/710/600/470mA	970/840/720/600mA	1070/940/830/700mA
	Line Regulation	±5%										
	Open circuit voltage(max)	50V										
	Setup time(note1)	<500ms@230V										
	Flickering Index(IEEESTd 1789)	<5%(LOW Risk)										
	IEC-PST/CIE (SVM)	≤1/≤0.4										
	Protection	Short circuit protection	PASS									
Over voltage protection		PASS										
Over temperature protection		PASS										
Environment	Maximum case temperature tc	90℃										
	Operating temperature	-20...+45 ℃										
	Storage temperature/humidity	-25...+85 ℃; 5-95% RH										
	Relative humidity	5...85%										
	Environmental rating	Indoor										
	IP rating	IP20										
	Life time	>50,000H @25℃										
Saffty&EMC	Safety standards	BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384										
	Withstand voltage	I/P-O/P:3.75KVAC										
	Isolation Resistance	I/P-FG: 500VDC, ≥4M Ω										
	surge	IEC/EN61000-4-5(L-N:1.5KV )										
	EMC EMISSION	BS EN/EN55015, BS EN/EN61000-3-2 Class C ; BS EN/EN61000-3-3										
	EMC IMMUNITY	BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547										
Other	Dimension	Refer to the specification sheet										
	Weight	Refer to the specification sheet										

## Efficiency **VS** Output voltage



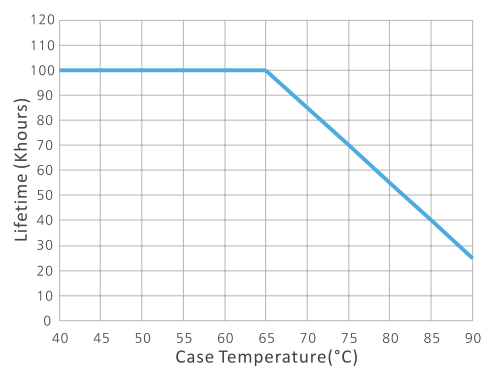
※The above graphs are based on the maximum current of each series.

## THD **VS** Output Power Ratio



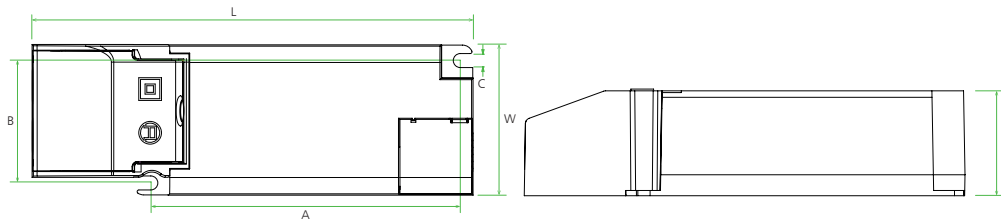
※The above graphs are based on the maximum current of each series.

## Lifetime **VS** Case Temperature



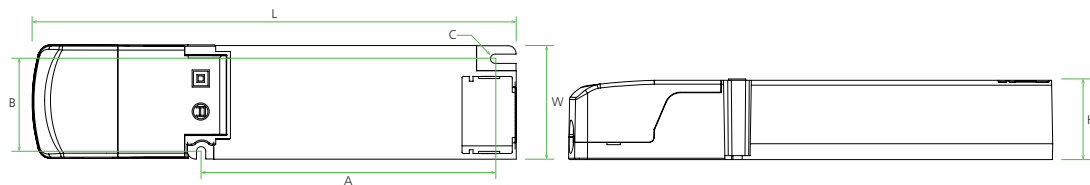
## Mechanical specification

## Terminal: S



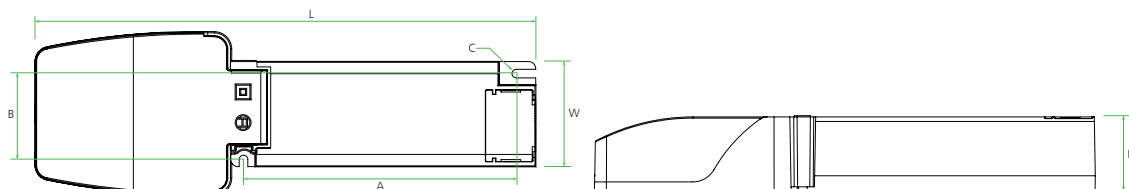
Code	Dimension(mm)						Product Weight(Kg)		Package Weight(Kg)		Carton Size(cm)	Qty/ CTN
	L	W	H	A	B	C	N.W/PC	G.W/PC	N.W/CTN	G.W/CTN		
ASI-8W180-D4F	126.4	43	30.5	88.5	35	4	0.102	0.123	4.896	6.592	28*22*23.5	48
ASI-10W230-D4F												
ASI-13W290-D4F												
ASI-15W350-D4F												
ASI-18W430-D4F	153.9	43	30.5	111.2	35	4	0.135	0.158	6.480	7.970	33.5*22*23.5	48
ASI-19W470-D4F												
ASI-25W590-D4F												
ASI-30W700-D4F												
ASI-35W840-D4F	168.6	48.7	30.5	128	35	4	0.220	0.245	10.560	9.170	36.5*18.5*23.5	36
ASI-40W970-D4F												
ASI-45W1070-D4F												

## Terminal: M



Code	Dimension (mm)						Product Weight (Kg)		Package Weight (Kg)		Carton Size(cm)	Qty/ CTN
	L	W	H	A	B	C	N.W/PC	G.W/PC	N.W/CTN	G.W/CTN		
ASI-8W180-D4F	156.4	43	30.5	88.5	35	4	0.15	0.171	7.2	8.56	34.5*22*23.5	48
ASI-10W230-D4F												
ASI-13W290-D4F												
ASI-15W350-D4F												
ASI-18W430-D4F	183.2	43	30.5	88.5	35	4	0.185	0.208	8.88	10.37	39.5*22*23.5	48
ASI-19W470-D4F												
ASI-25W590-D4F												
ASI-30W700-D4F												
ASI-35W840-D4F	198.4	48.7	30.5	128	35	4	0.23	0.255	8.28	9.53	42.5*18.5*23.5	36
ASI-40W970-D4F												
ASI-45W1070-D4F												

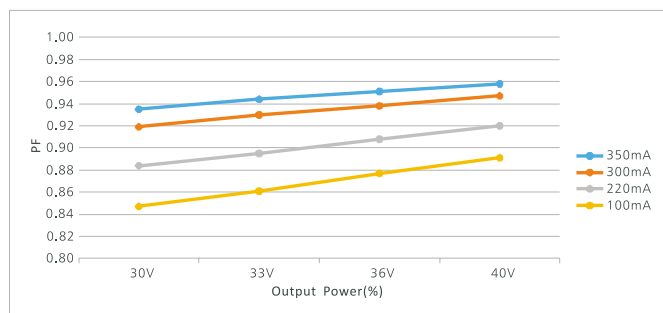
## Terminal: L



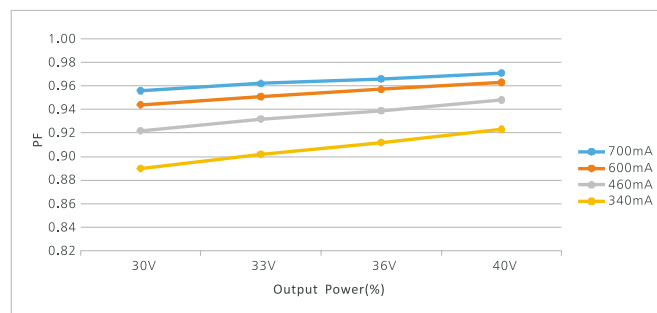
Code	Dimension (mm)						Product Weight (Kg)		Package Weight (Kg)		Carton Size(cm)	Qty/CTN
	L	W	H	A	B	C	N.W/PC	G.W/PC	N.W/CTN	G.W/CTN		
ASI-8W180-D4F	177.7	66.7	30	90	35	4	0.131	0.154	6.29	7.84	39*30*23.5	48
ASI-10W230-D4F												
ASI-13W290-D4F												
ASI-15W350-D4F												
ASI-18W430-D4F	204.3	66.7	30	90	35	4	0.179	0.202	8.6	10.15	44*30*23.5	48
ASI-19W470-D4F												
ASI-25W590-D4F												
ASI-30W700-D4F												
ASI-35W840-D4F	220	66.7	30	128	35	4	0.209	0.242	7.53	9.16	46.5*24.5*23.5	36
ASI-40W970-D4F												
ASI-45W1070-D4F												

## POWER FACTOR CHARACTERISTIC BASED ON MAX. CURRETN

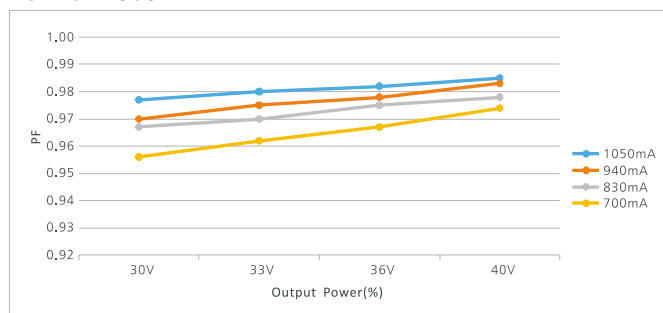
**ASI-15W350-D4F**



**ASI-30W700-D4F**

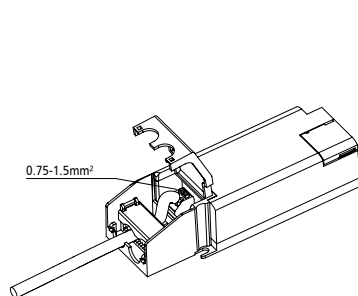
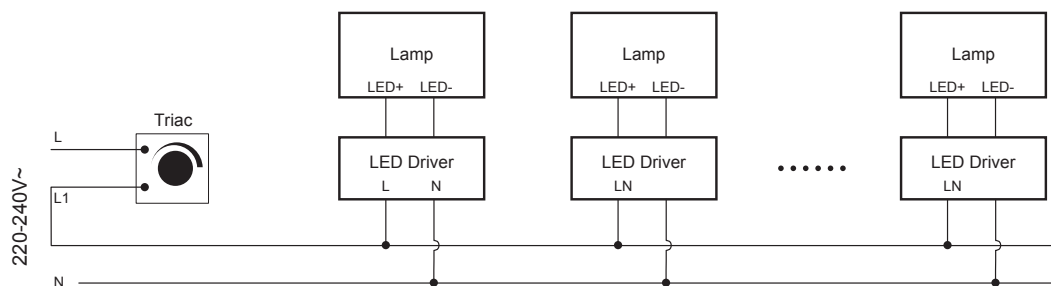


**ASI-45W1050-D4F**

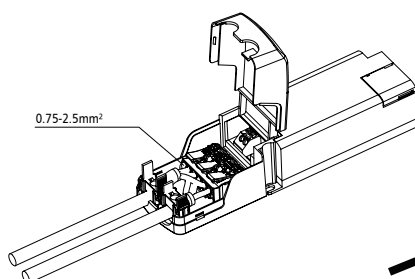


※ The above graphs are based on the maximum current of each series.

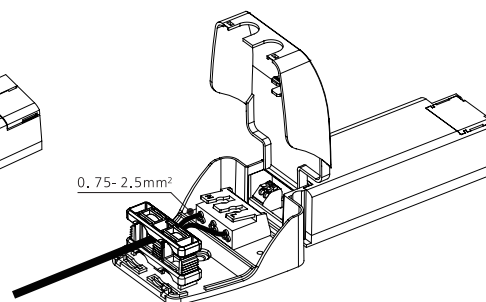
## Wiring Diagram



Terminal: S



Terminal: M



Terminal: L3

## MCB Information

Product Specification					Circuit Breaker Specification							
Model	Inrush current(A)	Inrush time	Rated Voltage (AC/V)	Input current (A)	B10	B13	B16	B20	C10	C13	C16	C20
ASI-8W180-D4F	13	133uS	AC200-240V	0.09	10	13	16	20	10	13	16	20
ASI-10W230-D4F					15	20	24	31	26	33	41	52
ASI-13W290-D4F												
ASI-15W350-D4F												
ASI-18W430-D4F	13	80uS	AC200-240V	0.17	39	50	62	78	39	50	62	78
ASI-19W470-D4F												
ASI-25W590-D4F												
ASI-30W700-D4F												
ASI-35W840-D4F	36	3.16uS	AC200-240V	0.26	25	33	41	51	25	33	41	51
ASI-40W970-D4F												
ASI-45W1070-D4F												

## NOTE:

1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. De-rating may be needed under low input voltages.
5. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.
6. The driver 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.
7. To fulfill requirements of the latest ErP regulation for lighting fixtures , this LED driver can only be used behind a switch without permanently connected to the mains
8. For any application note and IP water proof function installation caution, please refer our user manual before using.
9. It is recommended that customer should install protection devices for surge, for over voltage and for under voltage to ensure safety before connecting to electricity.
10. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED luminaire. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer re-confirms the EMC of the whole LED light fixture.
11. It's suggested that the user should use a slotted screwdriver or a Philips screwdriver to adjust the output current in case the potentiometer is damaged. The screwdriver with a 2mm slot head is recommended. Torque is not higher than 0.5KNM. Make sure the insulation of the screwdriver is good enough.
12. The total output power of the light fixture should NOT exceed the maximum rated output power of the driver.
13. We are not allowed to cover the LED driver