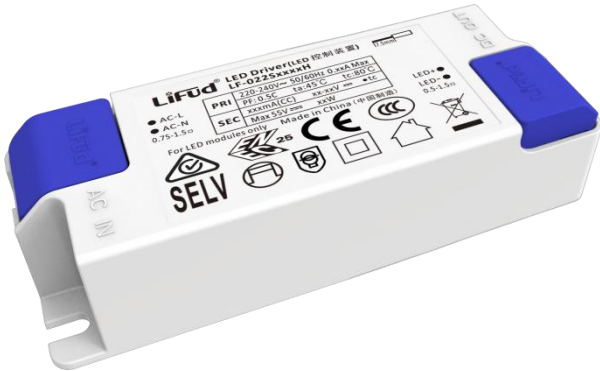


## LF-022SxxxxH

022S SELV | Constant Current - Non Dimmable



### Product family features

- Flicker free
- Ultra-quiet operation
- IP20
- 5 years guarantee



### Product family benefits

- Compact volume
- High cost performance
- Isolated

### Typical applications

- For indoor lighting
- For down light, spotlight, and wall light

### Product parameters

- |  |                           |
|--|---------------------------|
| — Output current 400/450/500/550/600/650/700mA | — Output voltage 18-40Vdc |
| — Output power 10.8-22.8W                      | — Efficiency 88%          |
| — Input voltage 220-240Vac                     |                           |

## Electrical data

### Input data

Rated input voltage	220 ... 240V	
Input voltage AC	198 ... 264V	
Mains frequency	50/60Hz	
Phase factor	$\geq 0.7$	
Power factor	$\geq 0.5$	
Efficiency	$\geq 88\%^{1)}$	
THD	/	
Input current	0.22A Max	
Inrush current	20A <sup>2)</sup>	35A <sup>2)</sup>
Loading number on circuit breaker 10 A (B)	42	23
Loading number on circuit breaker 10 A (C)	46	35
Loading number on circuit breaker 16 A (B)	67	38
Loading number on circuit breaker 16 A (C)	74	57
Protective conductor current	$\leq 0.7\text{mA}$	

### Output data

Nominal output voltage	27... 40V	27... 40V	27-38V <sup>3)</sup>	18-32V <sup>4)</sup>	18-30V <sup>5)</sup>
Nominal output current	400/450mA	500/550mA	600mA	650mA	700mA
Maximum output power	22.8W				
Nominal output power	10.8...22.8W				
Output ripple current (100 Hz)	$< 5\%$				
Flicker	According to IEEE Std 1789-2015				
CIE SVM	$\leq 0.4$				
IEC-Pst	$\leq 1$				
Current tolerance	$\pm 7\%$				
Temperature tolerance	$\pm 10\%$				
Start-up time	$< 0.5\text{S}$				

### Safety

Withstanding voltage	I/P-O/P: 3.75kV&5mA&60S
Surge capability (L-N)	L-N: 1kV
Surge capability (L/N-Ground)	-
Insulation resistance	I/P-O/P: $> 100\text{M}\Omega @ 500\text{Vdc}$
Guarantee	5 years <sup>6)</sup>

1) 88% @400-600mA; 87% @650-700mA

2)  $t = 100\mu\text{s}$

3) 27-38V: operating voltage range. LF-022S0600H can meet the new standard IEC 61000-3-2:2019/A1:2021 output voltage range of 28-37Vdc

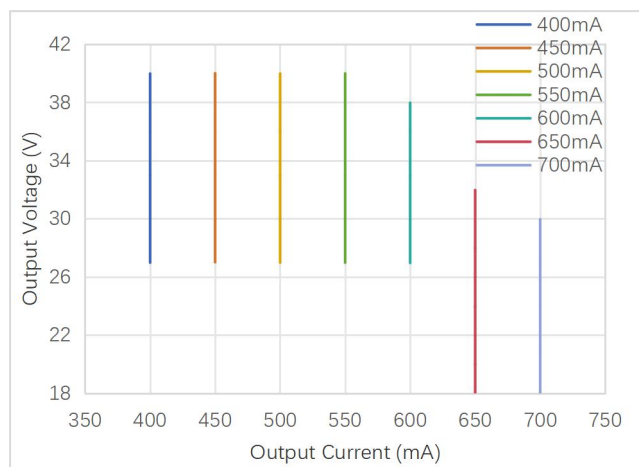
4) 18-32V: operating voltage range. LF-022S0650H can meet the new standard IEC 61000-3-2:2019/A1:2021 output voltage range of 21-32Vdc

5) 18-30V: operating voltage range. LF-022S0700H can meet the new standard IEC 61000-3-2:2019/A1:2021 output voltage range of 21-30Vdc

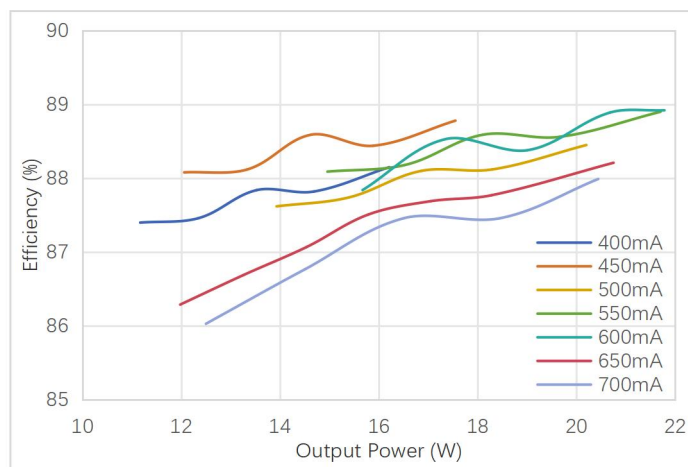
6) 5 years @  $T_c \leq 80^\circ\text{C}$

## Characteristic diagrams

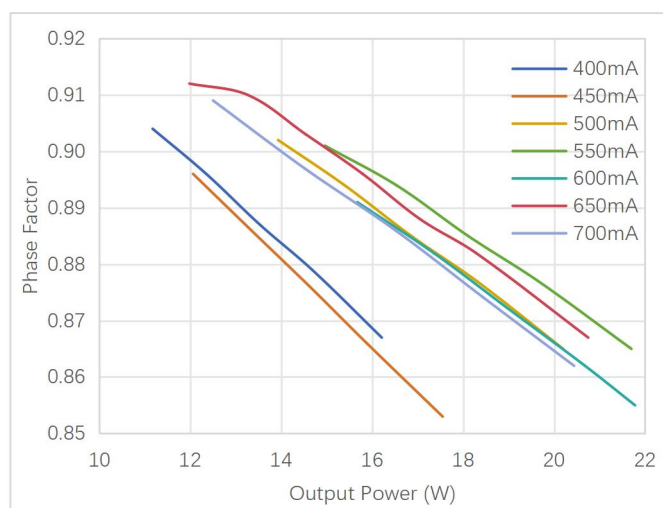
Operating Window



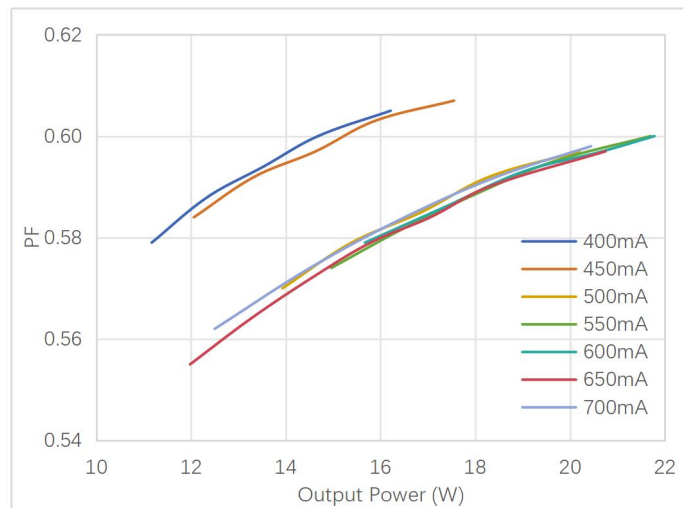
Typical Efficiency vs Load



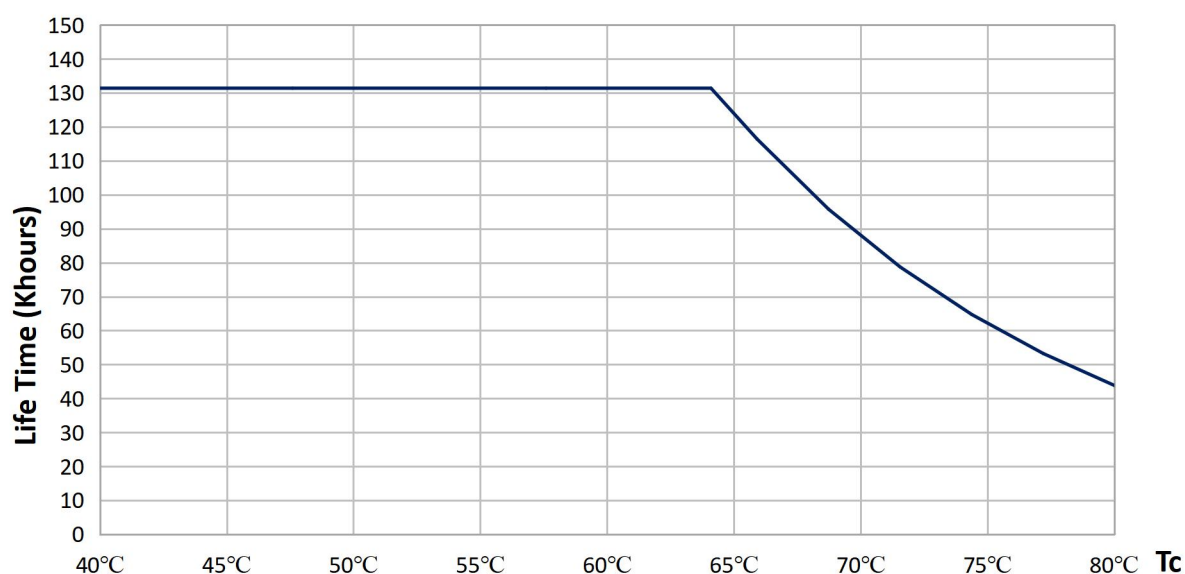
Typical Phase Factor vs Load



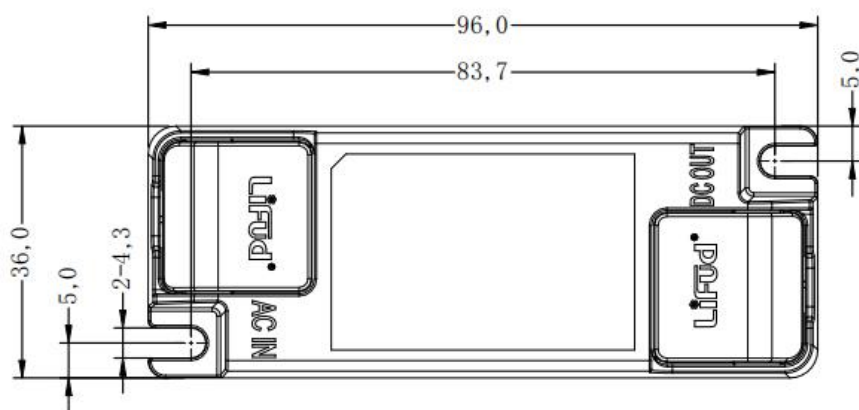
Typical Power Factor vs Load



## Lifespan



## Dimensions



Mounting hole spacing, length	83.7mm
Positioning hole diameter	4.3mm
Product weight	55g
Cable cross-section, input side	0.75 ... 1.5 mm <sup>2</sup>
Cable cross-section, output side	0.5 ... 1.5 mm <sup>2</sup>
Wire outer diameter, input side	3... 5mm
Wire outer diameter, output side	3... 5mm
Wire preparation length, input side	7 ... 8mm
Wire preparation length, output side	7 ... 8mm
Length	96mm
Width	36mm
Height	24mm

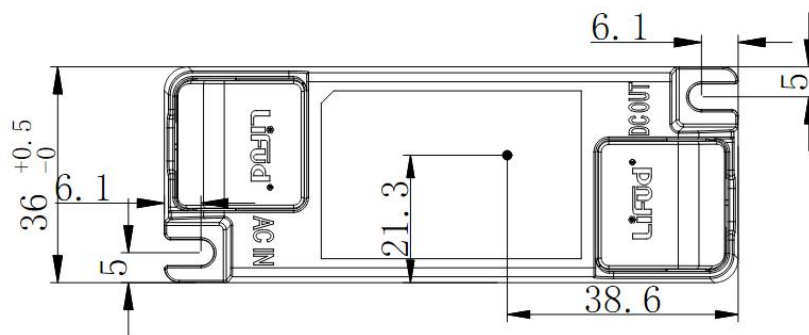
### Colors & materials

Casing material	PC
Casing color	White

### Temperature & operating conditions

Ambient temperature range	-30 ... +45°C
Maximum temperature at tc test point	80°C
Temperature range at storage	-40 ... +80°C (6 months in Class I environment)
Humidity range at storage	10-90%RH (no condensation)
Humidity during operation	20-90%RH
RoHS	RoHS 2.0 (EU) 2015/863

## Tc test point



Note: The picture is a front view, and the Tc point is on the front of the product.

## Product terminal

Input		Output	
AC-L	AC live wire input	LED+	Positive terminal output of LED driver
AC-N	AC neutral wire input	LED-	Negative terminal output of LED driver

## Capabilities

Dimmable	-
Overheating protection	-
Overload protection	-
Short circuit protection	Self-recovery
No-load protection	<55V
Over-temperature protection	-
Suitable for fixtures with prot. class	II
Control interface	-
Output interface	-

## Programming

Programming device	-
DALI control software	-
APP	-

## Certificates & standards

Approval marks	CCC, ENEC, CB, CE, RCM
Standards	GB 19510.1-2009, GB 19510.14-2009 IEC/EN 61347-2-13, IEC/EN 61347-1, IEC/EN 62493 IEC/EN 62384 AS 61347.1, AS 61347.2.13
EMC	GB 17625.1-2022, GB/T 17743-2021 EN 55015, EN 61547, EN 61000-3-2,3
Type of protection	IP20

## Logistical data

Product	Packaging unit (Pieces/Unit)	Dimensions (L*W*H)	Volume	Gross weight
LF-022SxxxxH	161	385mm*285mm*210mm	24.47 dm <sup>3</sup>	9.73kg±5%

## Test equipment & condition

Test equipment	AC power source: CHROMA6530, digital power meter: CHROMA66205, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: EEC SE7440, flicker tester (flicker-free coefficient test): Everfine LFA-3000, etc.
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If there are no special remarks, the above parameters are tested at the ambient temperature of 25℃, humidity of 50%, maximum output load and input voltage of 230Vac/50Hz.

## Additional information

1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety.
2. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished.
3. The number of LED drivers that can be connected to a circuit breaker and the inrush current are tested under the same conditions.
4. The PC cover, casing and end cap for assembling the LED driver in the light fixture must meet the fire rating of UL94-V0 or above.

## Transportation & storage

Suitable transportation means: vehicles, boats and aeroplanes.

In transit, it is necessary to prepare awnings for rain or sun protection. Moreover, please keep civilized loading and unloading to prevent the vibration or impact on LED driver as much as possible.

The storage of LED driver shall conform to the standard of Class I environment. When using LED drivers which have been stored for more than 6 months, please re-test them firstly. Do not use them unless they are tested to be qualified.

## Cautions

Please use Lifud LED driver according to its parameters in the specification, otherwise the LED driver may malfunction.

Using any incompatible light fixtures or those that have not been certified may cause fire, explosion or other risks.

Man-made damage is beyond the scope of Lifud warranty service.

## Disclaimer

Subject to change without notice. Errors and omissions excepted. Always make sure to use the most recent release.

Lifud Technology Co., Ltd. reserves the right to interpret any content of this specification.