

LF-FMR150YS

FMR*YS non-SELV 1-driver with 8-output current | Constant Current - Non Dimmable



Product family features

- Low THD<10%@full load
- Rated input voltage: 220-240Vac
- Ta: -40℃~+60℃
- Ripple current<5%
- Suitable for Class I light fixtures
- 5 years guarantee



Product family benefits

- Output current adjustable via DIP switch in 8 shifts
- Super high efficiency
- Linear metal casing with 21mm housing height
- Long lifetime and high reliability
- Flicker free
- Non-SELV output

Typical applications

- For linear light, tri-proof light and strip light
- For office, commercial, decorative and retail lighting

Product parameters

- | | |
|--|-----------------------------|
| — Output current 350/400/450/500/550/600/650/700mA | — Output voltage 128-350Vdc |
| — Output power 44.8-150W | — Efficiency 95% |
| — Input voltage 176-264Vac | |

Electrical data

Input data

Rated input voltage	220 ... 240V
AC voltage range	176 ... 264V ¹⁾
Mains frequency	0/50/60 Hz
Input voltage DC	180 ... 264V ²⁾
Power factor	≥0.95
Efficiency	95%
THD	≤10%
Input current	0.85A Max@220-240Vac 0.52-0.72@220-240Vac
Inrush current	62A ³⁾
Loading number on circuit breaker 10 A (B)	3
Loading number on circuit breaker 10 A (C)	6
Loading number on circuit breaker 16 A (B)	6
Loading number on circuit breaker 16 A (C)	10
Protective conductor current	≤3.5mA

Output data

Nominal output voltage	128 ... 350V ⁴⁾
Nominal output current	350/400/450/500/550/600/650/700mA ⁵⁾
Default output current	700mA
Current setting	DIP switch (please see the DIP switch definition)
Maximum output power	150W
Nominal output power	44.8 ... 150W
Output ripple current (100 Hz)	<5%
Flicker	According to IEEE Std 1789-2015
CIE SVM	≤0.4
IEC-Pst	≤1
Output current tolerance	±5% ⁶⁾
Temperature tolerance	±10%
Start-up time	<1S

Safety

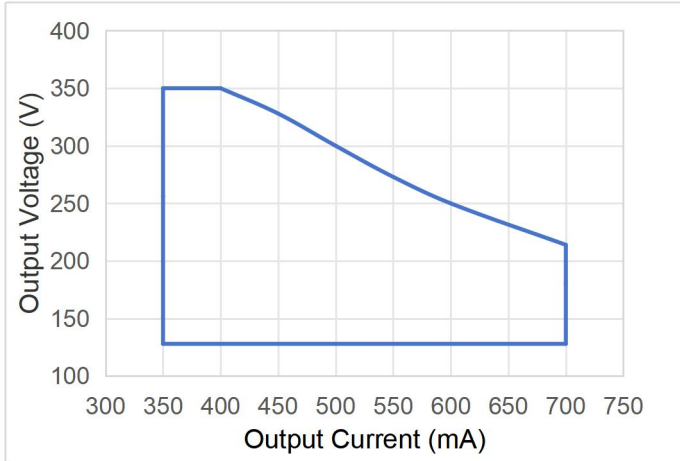
Withstanding voltage	I/P-PG: 1.5kV&5mA&60S;
Surge capability (L-N)	1 kV
Surge capability (L/N-E)	2 kV
Insulation resistance	I/P-PG O/P-PG: > 100MΩ@500VDC
Guarantee	5 years ⁷⁾

- 1) 176V can be used for a short time when the power grid fluctuated, and the maximum use time is 4H. It is not recommended to use 176V under the normal use environment for a long time
- 2) DC input is only for emergency
- 3) $t = 300 \mu s$
- 4) 128-350Vdc@350/400mA; 128-333Vdc@450mA; 128-300Vdc@500mA; 128-273Vdc@550mA;
128-250Vdc@600mA; 128-230Vdc@650mA; 128-214Vdc@700mA
- 5) Fixed current version optional

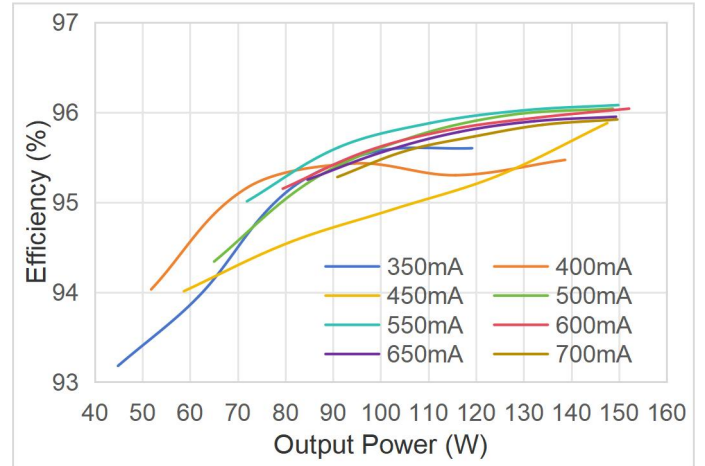
- 6) $\pm 5\%$ @550-700mA ; $\pm 7\%$ @350-500mA
 7) 5 years @ $T_c \leq 86^\circ\text{C}$

Characteristic diagrams

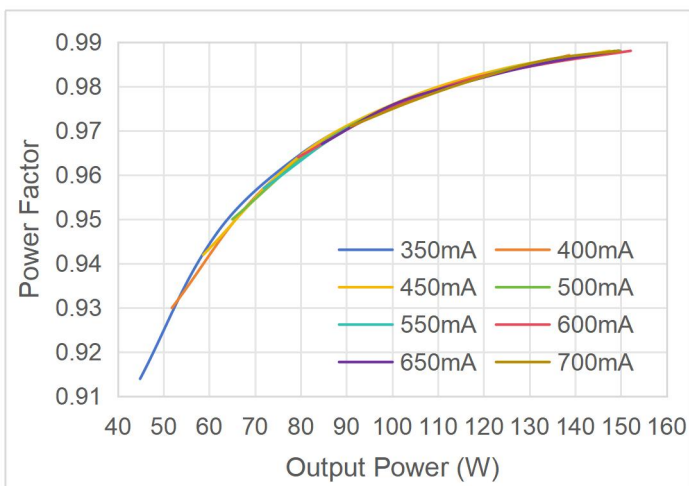
Operating Window



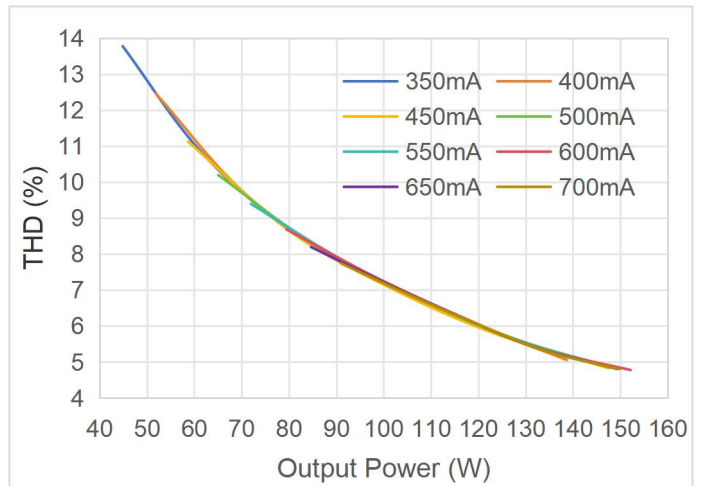
Typical Efficiency vs Load



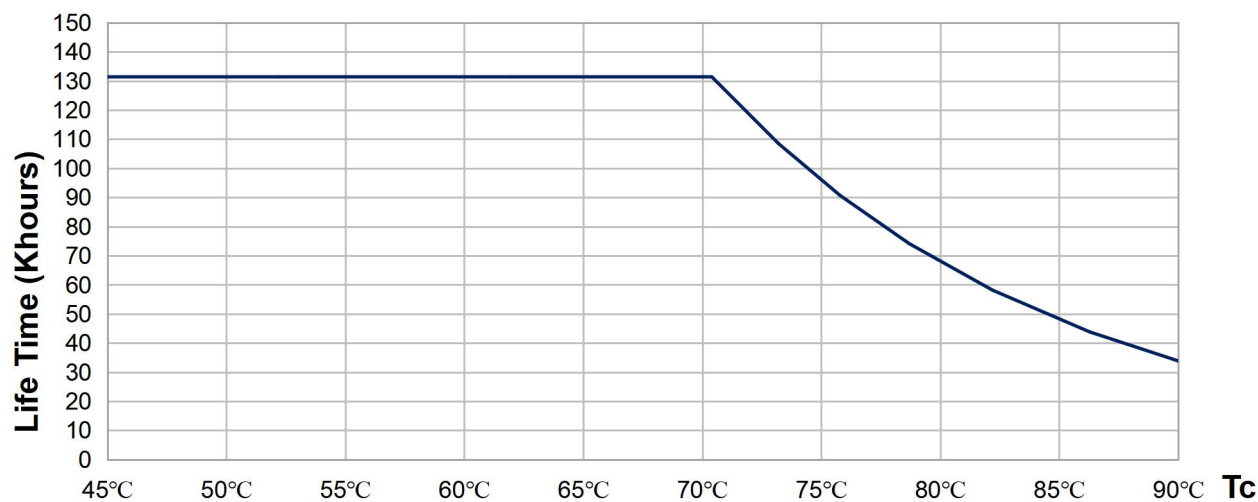
Typical Power Factor vs Load



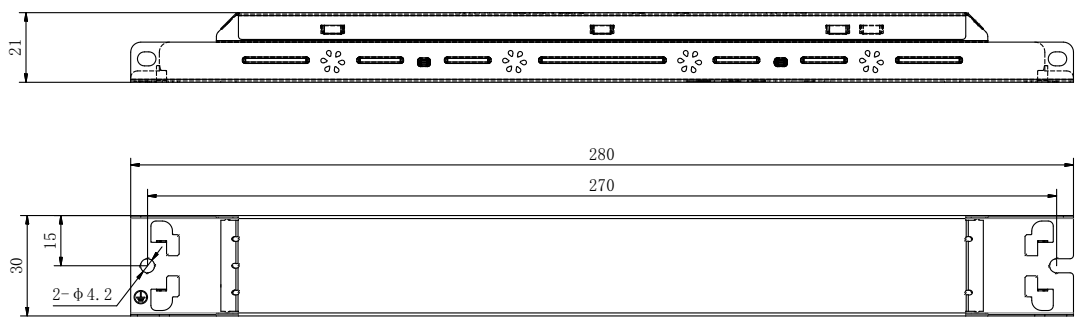
Typical THD vs Load



Lifespan



Dimensions



Mounting hole spacing, length	270.0mm
Positioning hole diameter	4.2mm
Product weight	220.0g
Cable cross-section, input side	0.5 ... 1.5 mm²
Cable cross-section, output side	0.5 ... 1.5 mm²
Wire preparation length, input side	7 ... 8mm
Wire preparation length, output side	7 ... 8mm
Length	280.0mm
Width	30.0mm
Height	21.0mm

Colors & materials

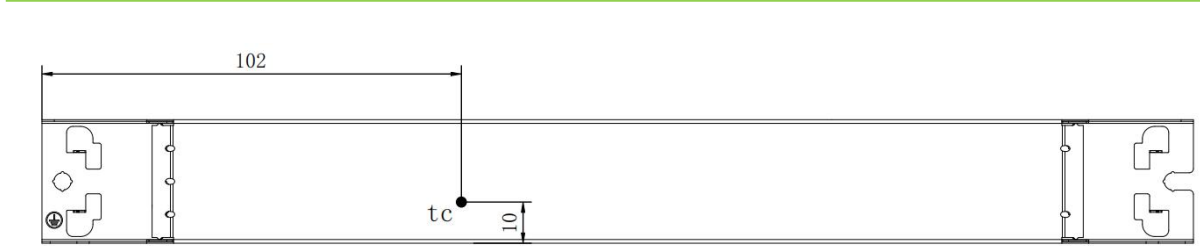
Casing material	Color coated galvanized sheet
Casing color	White

Temperature & operating conditions

Ambient temperature range	-40°C - +60°C
---------------------------	---------------


Maximum temperature at Tc test point	90℃
Temperature range at storage	-40℃ - +80℃ (6 months in Class I environment)
Humidity range at storage	10-95%RH (no condensation)
Humidity during operation	20-90%RH
RoHS	RoHS 2.0 (EU) 2015/863

Tc test point



Note: this diagram is a front view and Tc point is on the front side of the driver.

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
	Earth wire		

DIP switch definition

Output current	Output voltage	DIP switch 1	DIP switch 2	DIP switch 3	DIP switch 4
350mA	128-350Vdc	ON	ON	-	ON
400mA	128-350Vdc	-	ON	-	ON
450mA	128-333Vdc	ON	-	ON	-
500mA	128-300Vdc	-	-	-	ON
550mA	128-273Vdc	-	-	ON	-
600mA	128-250Vdc	-	ON	-	-
650mA	128-230Vdc	ON	-	-	-
*700mA	128-214Vdc	-	-	-	-

Note: “-”: shift OFF. “*”: default current. When adjusting the output current via the DIP switch, please disconnect input AC first so as to use the DIP switch without the input AC connected.

Capabilities

Dimmable	-
Over-temperature protection	-
Overload protection	-

Short circuit protection	Automatic reversible
No-load protection	<400V
Suitable for fixtures with prot. class	I
Control interface	-
Number of channels	1 channel

Programming

Programmer	-
DALI control software	-
APP	-

Certificates & standards

Approval marks	ENEC, UKCA, CE, CB, EL, RCM, SAA, CCC, EAC
Standards	GB 19510.1-2009, GB 19510.14-2009 IEC/EN 61347-2-13, IEC/EN 61347-1, IEC/EN 62493 IEC/EN 62384 IEC/EN 61347-2-13 Annex J AS 61347.1, AS 61347.2.13 TP TC 004/2011+TP TC 020/2011
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-FMR150YS	42	385mm*285mm*210mm	23.04 dm ³	10.21kg±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.
----------------	---

If there are no special remarks, the above parameters are tested at the ambient temperature of 25℃, humidity of 50%, full 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.
5. The withstand voltage between LEDs and PCBA should be $>3KV$.
6. It is recommended to install double-pole switch at AC input terminal. If user uses the single-pole switch, make sure to connect it to wire L (live wire), otherwise the afterglow of light fixture would be incurred after the AC is disconnected.
7. Because there is parasitic capacitance between LEDs and the PCBA, there will be a slight flicker when the PCBA (the light fixture) is grounded and AC is powered on. It's normal for non-isolated products. To avoid this phenomenon, please choose a light board with lower parasitic capacitance.
8. The output voltage is 128-350Vdc and the maximum output power is 150W. The voltage and current CANNOT exceed the rated power.
9. The light panel, fixed bracket and driver grounding should be secure.

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.