

PRODUCT DATASHEET

LVED FP 250/1.05-1.50/IP67 VS10

FULL PROGRAMMABLE OUTDOOR DRIVER



AREAS OF APPLICATION

- Street and urban lighting
- Industry
- Suitable for outdoor applications in luminaires
- Suitable for use in outdoor luminaires of protection

PRODUCT FAMILY FEATURES

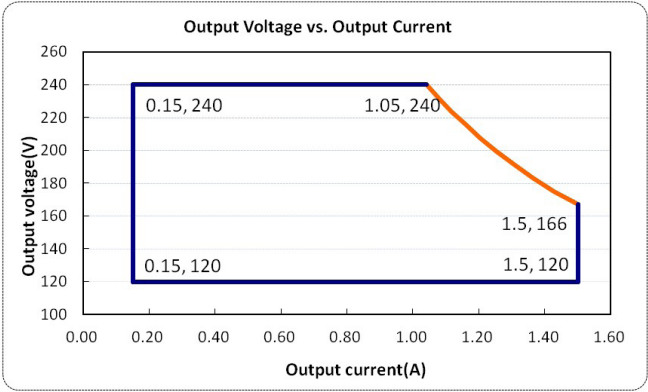
- Rated input voltage range 220~240Vac
- Constant power design, output current programming adjustable
- Offline programmable
- 3-in-1 dimmable: 1~10Vdc, PWM, Timer dimming
- Output and Dimming Signal Isolating
- Surge protection: DM 5KV, CM 10KV
- Protections: SCP, OVP, OTP
- IP67 design for indoor and outdoor applications
- Suitable for dry / damp / wet locations
- 5 years warranty

TECHNICAL DATA

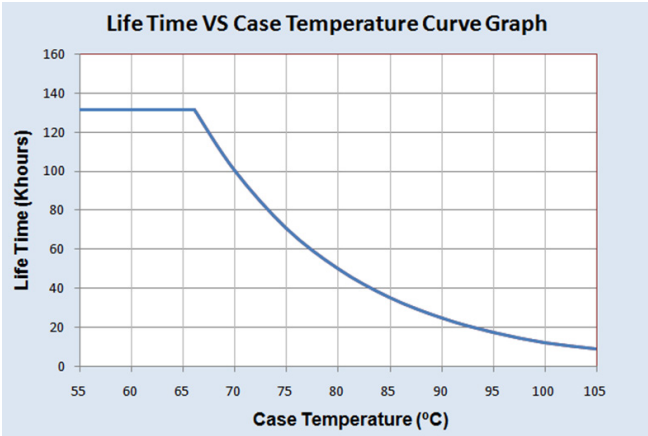
Electrical data

Max Output Power (W)	250W
Output Voltage Range (Vdc)	120-240V
Full Power Voltage Range (V)	166-240V
Output Current Adjustable Range (A)	0.15-1.50A
Default Output Current Setting(A)	120-166V/1.50A
Typical Efficiency [2]	93%
Power Factor	0.98
Rated Input Voltage	220...240 Vac
Input Voltage	Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition, less than 175Vac driver can work properly, the output current will be reduced)
Input Frequency	Min : 47Hz, Max:63Hz, Type :50/60Hz
Leakage Current	0.70mA (240Vac/60Hz)
Input AC Current	2A (220-240Vac & full load)
Inrush Current	Max: 75A (230Vac & full load)
Power Factor	Min : 0.96 , Type :0.98 (230Vac & Full load)
Output P_ST_LM (at full load)	<1
Output SVM (at full load)	<0.4
THD	Type : 5%, 10% (230Vac, 50-60Hz, 70%-100% load)
Output Current Tolerance	Min : 5%, Max : 5%
Total Output Current Ripple(pk-pk)	Type :10%, Max :10% (20MHz BW, full load & LED load, the ripple would be tiny different under different LED load.)
Startup Overshoot Current	Max : 10% (220~240Vac & 100% Load, load is LED)
No Load Output Voltage	Max : TBD
Line Regulation	Min : -5% , Max : 5% (25°C± 10°C ambient temperature, input voltage changes from 100Vac to 277Vac)
Load Regulation	Min : -5%, Max: 5% (25°C± 10°C ambient temperature, Input Voltage 230Vac, load changes from 60% to 100%)
Surge Protection	DM 5KV, CM 10KV
Grounding Resistance	Max : 0.1Ω (25A/60S, under 25°C± 10°C ambient temperature)
Insulation Resistance	Min : 10MΩ (Input-Output, 500Vdc/60S/25°C/70%RH)
MTBF	Type : 200000Hrs (25°C± 10°C ambient temperature, 230Vac, 80% load (MIL-HDBK-217F))
Lifetime	50000Hrs (230Vac&100% load, 75°C case temperature, refer to lifetime curve for details)
Operating Case Temperature for Safety Tc_s	Min : -40°C, Max : +90°C
Operating Case Temperature for Warranty Tc_s	Min : -40°C, Max : +75°C (5 years warranty case temperature Humidity: 10% to 95% RH)
Storage Temperature	Min : -40°C, Max : +85°C (Humidity: 5% to 100% RH)
1~10V Absolute Maximum Voltage on the Vdim (+) Pin	Type : 10V
1~10V Source Current on Vdim(+)Pin	Type : 200uA, Max : 400uA
Dimming Output Range	Min : 10%Imax, Max: 100%Iset
Recommended Dimming Range for 1-10V	Min : 1V , Max : 10V (Default 0-10V/ PWM Dimming)
PWM_in High Level	Min :9.7V,Max :10.3V (Default 0-10V/ PWM Dimming)
PWM_in Low Level	Min : 0V, Max:0.3V (Default 0-10V/ PWM Dimming)
PWM_in Frequency Range	Min:300Hz,Max: 2KHz (Default 0-10V/ PWM Dimming)
PWM_in Duty Cycle	Min:1%, Max:99% (Default 0-10V/ PWM Dimming)

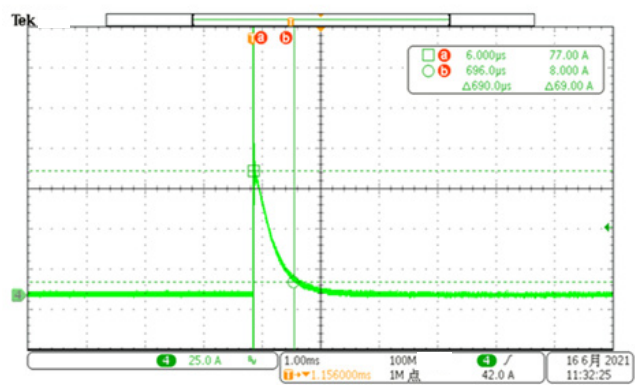
Operating Window



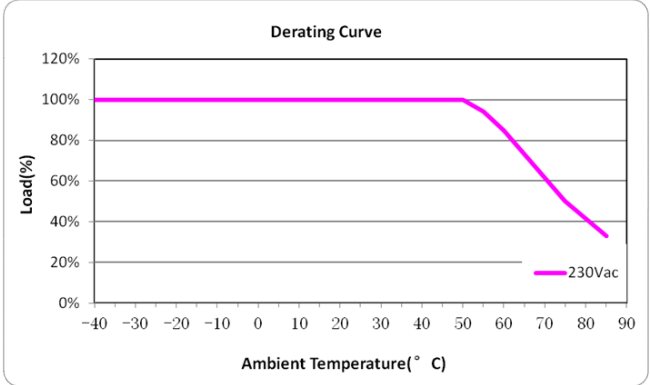
Lifetime vs Case Temperature



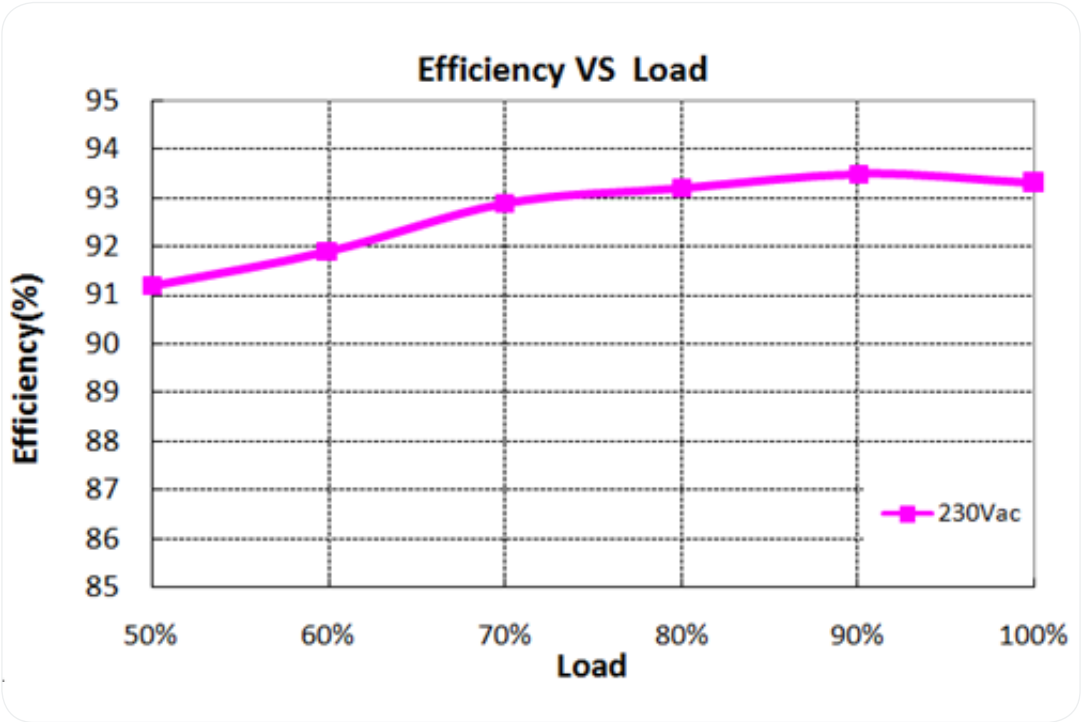
Inrush Current waveform



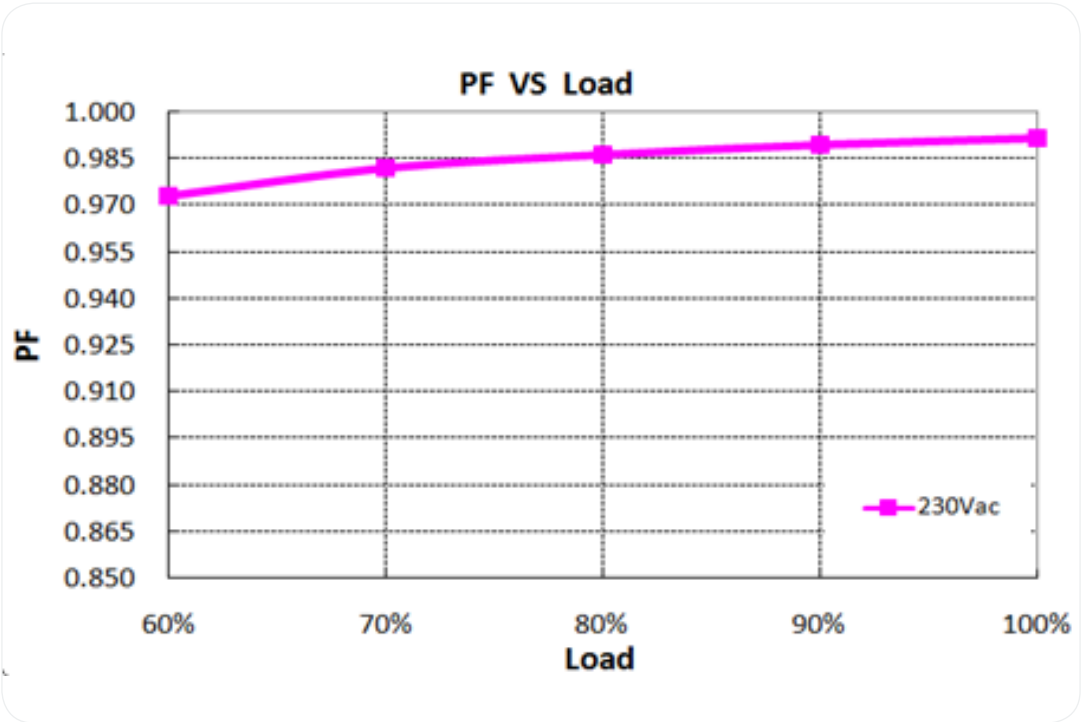
Derating Curve



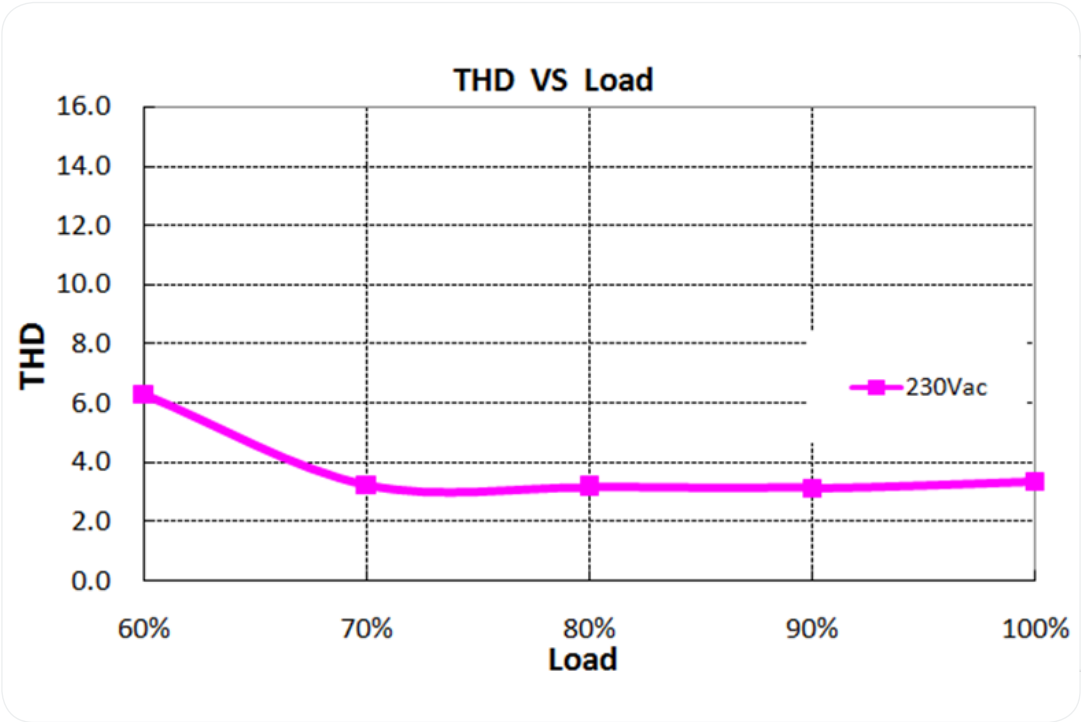
Efficiency vs Load



Power Factor vs Load



THD vs Load



-10V/PWM Dimming

