

PRODUCT DATASHEETLVED 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

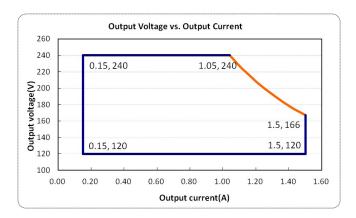
- Rated input voltage range 220~240Vac
- Constant power design, output current programming adjustable
- Offline programmable
- 3-in-1 dimmable: 1~10Vdc, PWM, Timer dimming
- Output and Dimming Signal Isolating
- Surge protection: DM 5KV, CM 10KV
- Protections: SCP, OVP, OTP
- IP67 design for indoor and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

TECHNICAL DATA

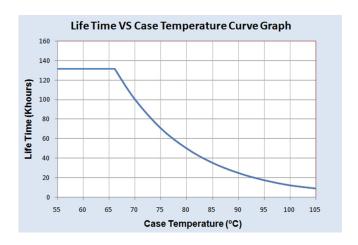
Electrical data

Output Voltage Range (Vdc) Full Power Voltage Range (V) Output Current Adjustable Range (A) Default Output Current Setting(A) Typical Efficiency [2] Power Factor Rated Input Voltage Input Voltage Input Frequency	250W 220-240V 266-240V 2.15-1.50A 2.20-166V/1.50A 2.3% 2.98 2.20240 Vac 4in: 90Vac, Max: 305Vac (Full load output at 175-305VAC input condition, ess than 175Vac driver can work properly, the output current will be reduced)		
Full Power Voltage Range (V) Output Current Adjustable Range (A) Default Output Current Setting(A) Typical Efficiency [2] Power Factor Rated Input Voltage Input Voltage Input Frequency	2.66-240V 2.15-1.50A 2.20-166V/1.50A 2.3% 2.98 2.20240 Vac Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
Output Current Adjustable Range (A) Default Output Current Setting(A) Typical Efficiency [2] Power Factor Rated Input Voltage Input Voltage Input Frequency Metalogy (A) Default Output Current Setting(A) 1. Default Output Current Setting(A) Default Output Cu	0.15-1.50A 1.20-166V/1.50A 1.3% 1.98 1.20240 Vac Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
Default Output Current Setting(A) Typical Efficiency [2] Power Factor Rated Input Voltage Input Voltage Input Frequency Metalogy Setting (A) Input Frequency	220-166V/1.50A 93% 9.98 220240 Vac Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
Typical Efficiency [2] 9 Power Factor 0. Rated Input Voltage Melei Input Frequency Melei	0.98 220240 Vac Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
Power Factor 0. Rated Input Voltage 2. Input Voltage Meter	0.98 220240 Vac Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
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Input Voltage Meter Mete	Min : 90Vac , Max : 305Vac (Full load output at 175-305VAC input condition,		
Input Frequency M			
Leakage Current 0	Min : 47Hz, Max:63Hz, Type :50/60Hz		
	0.70mA (240Vac/60Hz)		
Input AC Current 2.	2A (220-240Vac &full load)		
Inrush Current M	Max: 75A (230Vac & full load)		
Power Factor M	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%		
	Type :10%, Max :10% (20MHz BW, full load& LED load, the ripple would be tiny different under different LED load.)		
Startup Overshoot Current M	Max: 10% (220~240Vac &100% Load, load is LED)		
No Load Output Voltage	Max : TBD		
	Min : -5% , Max : 5% (25°C± 10°C ambient temperature, input voltage changes from 100Vac to277Vac)		
	Min :-5%, Max: 5% (25°C± 10°C ambient temperature, Input Voltage 230Vac, load changes from 60% to 100%)		
Surge Protection D	DM 5KV, CM 10KV		
Grounding Resistance	Max : 0.1Ω (25A/60S, under 25°C± 10°C ambient temperature)		
Insulation Resistance M	Min : 10MΩ (Input-Output, 500Vdc/60S/25°C/70%RH)		
	Type: 200000Hrs (25°C± 10°C ambient temperature, 230Vac,80% load (MIL-HDBK-217F))		
I itatima	50000Hrs (230Vac&100% load, 75°C case temperature, refer to lifetime curve for details)		
Operating Case Temperature for Safety Tc_s	∕lin : -40°C, Max : +90°C		
Unerating Case Jemperature for Warranty JC S	Min : -40°C, Max :+75°C (5 years warranty case temperature Humidity: 10% to 95% RH)		
Storage Temperature M	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 M	Min :9.7V,Max :10.3V (Default 0-10V/ PWM Dimming)		
PWM_in Low Level M	Min : 0V, Max:0.3V (Default 0-10V/ PWM Dimming)		
	Min:300Hz,Max: 2KHz (Default 0-10V/ PWM Dimming)		
	Min:1%, Max:99% (Default 0-10V/ PWM Dimming)		

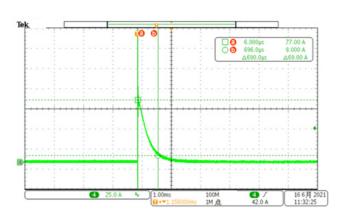
Operating Window



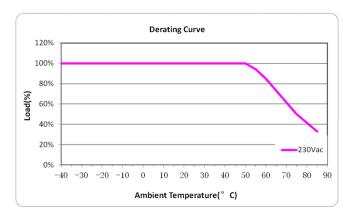
Lifetime vs Case Temperature



Inrush Current waveform



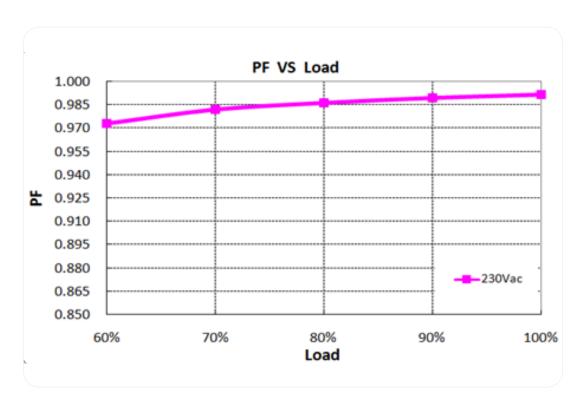
Derating Curve



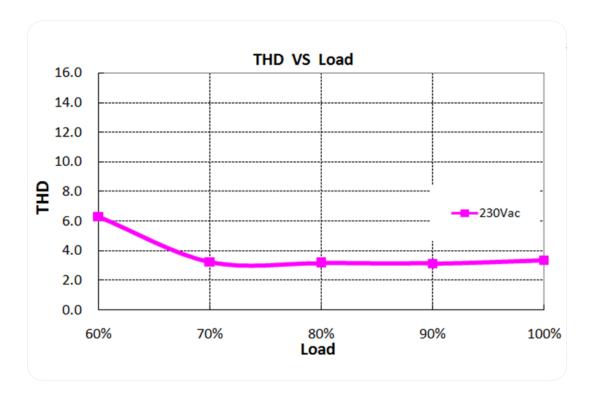
Efficiency vs Load



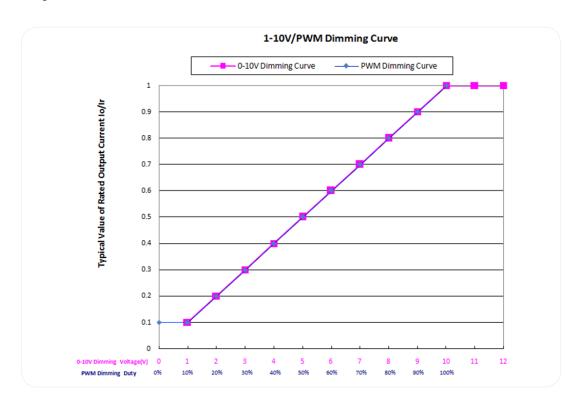
Power Factor vs Load



THD vs Load



-10V/PWM Dimming



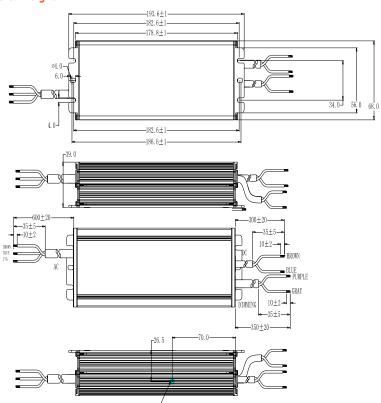
ADDITIONAL PRODUCT INFORMATION

The FP series is outdoor offline programmable LED driver that operates in constant current with high PF value and rated input voltage range 220~240Vac model. Offline Monitored by dimming cable connected withan USB kit programming device, the fully programmed drivers offer all dimming, dim-to-off, constant lumen output options and a wide range of output current in a single driver, which deliver maximum flexibility with customized operating settings and intelligent control options for lighting manufacturers, as one driver can be programmed for many different luminaire designs. FP provides built-in timer dimming schedules further increasing the energy savings and CO2 reductions achieved with LED lighting. It also helps clients to improve the management of logistics and stock. The compact metal case and high efficiency enables the driver to operating with high reliability, and extending product lifetime. Overall protection is provided against lightening surge, output over voltage, short circuit, and over temperature, to ensure low failure rate.

Certificates & Standards

Type of protection	
Standards	EN61347-1, EN61347-2-13,EN62493,EN62384,EN55015,EN61000-3-2, EN61000-3-3,EN61000-4-2,3,4,5,6,11,EN61547
Approval marks – approval	CE / ENEC

Dimensions & Weight



193.6 mm		
68 mm		
39 mm		
600 mm		
300 ± 20 mm		
350 ± 20 mm		

Product Code	Packaging unit (Pieces/ Unit)	Dimensions (length x width x height)	Gross weight	Volume
AC35849	Unpacked 1	193.6x68x39 mm		
***	Shipping carton box 10	500x310x160 mm	11 kg	dm³

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

Disclaimer

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