SAE Series

150W High Efficiency Dimmable Driver

Features

- For LED Outdoor & Industrial Application
- Wide Input Range for Worldwide use (up to 305Vac)
- Built-in PFC Function: up to PF 0.99
- IP67 Design for Outdoor Installation
- Suitable to Dry, Damp, Wet Location
- High Surge Protection: 4kV/6kV(IEC61000-4-5)
- 1-10V / PWM Dimming Function
- Dim-to-off Function (only 2.8A/3.15A)
- High Reliability & Long Life 50,000hrs
- Constant Current Design/ Low Ripple Current
- Isolation Class II Design, No F.G
- Type HL LED Driver for use in Class I Division 2 hazardous location luminaires.
- All-Round Protections: Short Circuit/ Over Power / Over Voltage/ Over Temperature
- Safety: Meet IEC61347-2-13, UL8750 & EMI EN55015

IP67 SELV Type TL Type HL

FSP150-FZAE(070) ☐G
V Type: IP67 rated with 1-10V Dimming Function
M Type: IP67 rated with 1-10V, PWM Dimming Function (only 2.8A/3.15A)
Blank Type: IP67 rated and without Dimming Function
R Type: IP65 rated and output current can be adjusted through internal potentionmeter

SPECIFICATION

Model Name		FSP150-FZAE(070)VG	FSP150-FZAE(140)VG	FSP150-FZAE(210)VG	FSP150-FZAE(280)MG	FSP150-FZAE(315)MG
Output	Rated Power	150W	150W	150W	150W	150W
	Output Voltage	165-215V	66-107V	51-71V	30-54V	30-48V
	Rated Current	700mA	1.4A	2.1A	2.8A	3.15A
	CURRENT ADJ. RANGE	350 ~ 700mA	700 ~ 1400mA	1050 ~ 2100mA	1400 ~ 2800mA	1575 ~ 3150mA
		Can be adjusted by internal potentiometer for R Type only				
	Output Current Accuracy	±5%	±5%	±5%	±5%	±5%
	Output Ripple Current[2]	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Turn On Delay Time,Rise time	≤1s max ;≤300ms max				
Input	Input Voltage/ Frequency[3]	90~305Vac/ 47~63Hz (Please refer to Static Curve)				
	Power Factor (typ.)	PF≧0.99/120Vac, PF≧0.97/230Vac, PF≧0.94/277Vac at full load				
	Efficiency (max.)	91.5%	91%	91%	91%	91%
	Total Harmonic Distortion[4]	THD <20% (Output Loading ≧50% at 120Vac/230Vac, Output Loading ≧75% at 277Vac)				
	AC Current (typ.)	≦1.5A /120Vac ; ≦0.8A /230Vac ; ≦0.8A /277Vac				
	Inrush Current (typ.)	50A at 230Vac, 25°C cold start				
	Leakage Current	≤0.75mA/277Vac				
Environment	Operating Temperature	-40°C ~ +70°C (Please Refer to "Derating Curve")				
	Operating Humidity	10~95% RH non-condensing				
	Storage Temperature, Humidity	-40°C~+85°C, 10~95%RH				
	Vibration	0.02g²/Hz at 5 Hz sloping to 0.04g²/Hz at 20 Hz, and maintaining 0.04g²/Hz from 20 Hz to 500 Hz at a constant acceleration of 4.43G for 30 minutes per axis for all three axes				
Protection	Over Voltage Protection	<250V	<135V	<100V	<80V	<70V
		Protection Type: Shut down and latch off, re-power on to recover			Recovers automatically after fault condition is removed	
	Short Circuit Protection	Shut down and latch off, re-power on to recover			Recovers automatically after fault condition is removed	
	Over Temperature Protection	Shut down and latch off, re-power on to recover			Recovers automatically after fault condition is removed	
Safety & EMC	Safety Standards	UL8750, Type HL, CSA-C22.2 No. 250.13, EN61347-1, EN61347-2-13 Approved.				
	EMC Standard	Compliant with EN55015/CISPR22 CLASS B, Compliant with EN61000-3-2 Class C (≥60% load), EN61000-3-3				
	Surge Protection	Differential Mode: 4KV; Common Mode: 6KV				
	Withstand Voltage (Hipot)	I/P-O/P 3750Vac, I/P-CASE 3000Vac, O/P-CASE 3000Vac				
	Isolation Resistance	I/P-CASE ,O/P-CASE: 100M ohm @ 500Vdc/ 25°C				
	Type TL	78/55°C	78/59°C	79/58°C	82/57°C	77/56°C
Others	Life Time [5]	50,000 hours at Tcase of ≤ 75°C				
	MTBF	≥ 200,000 hours, MIL-HDBK-217F(25°C)				
	Dimension (LxWxH)	250 x 60.5 x 38 mm				
	Net Weight / Packing	1100g; 10 pcs / box				

Notes:
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25℃ of ambient temperature.
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check the static characteristics for more details.
4. Measured at rated output voltage.
5. Measured at 230Vac/50Hz input, rated load.
6. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by thecomplete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

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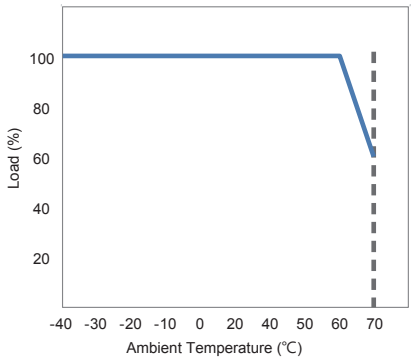
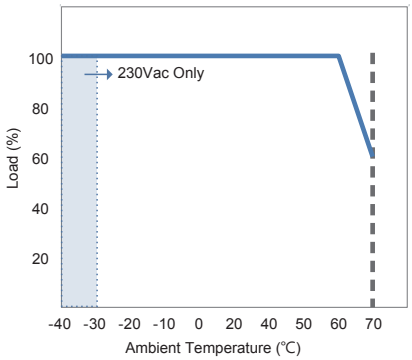
Derating Curve

FSP150-FZAE(070/140/210)VG

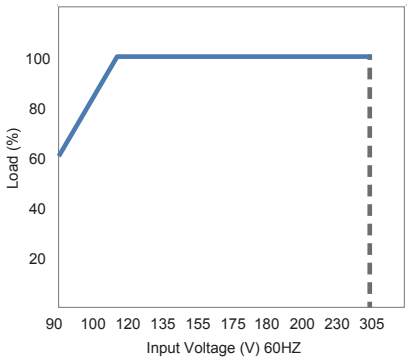


Derating Curve

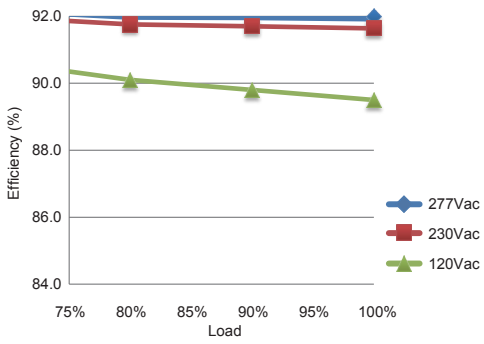
FSP150-FZAE(280/315)MG



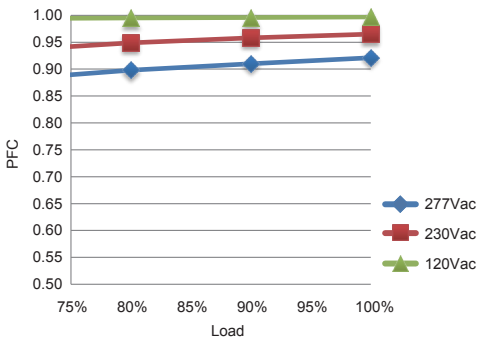
Static Curve



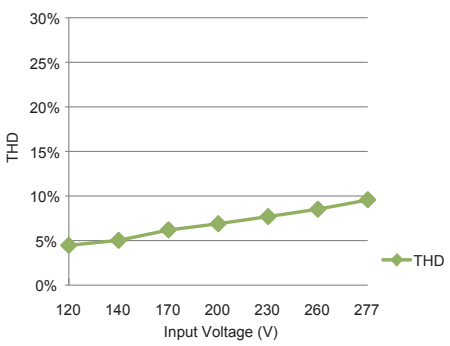
Efficiency



PFC vs Loading

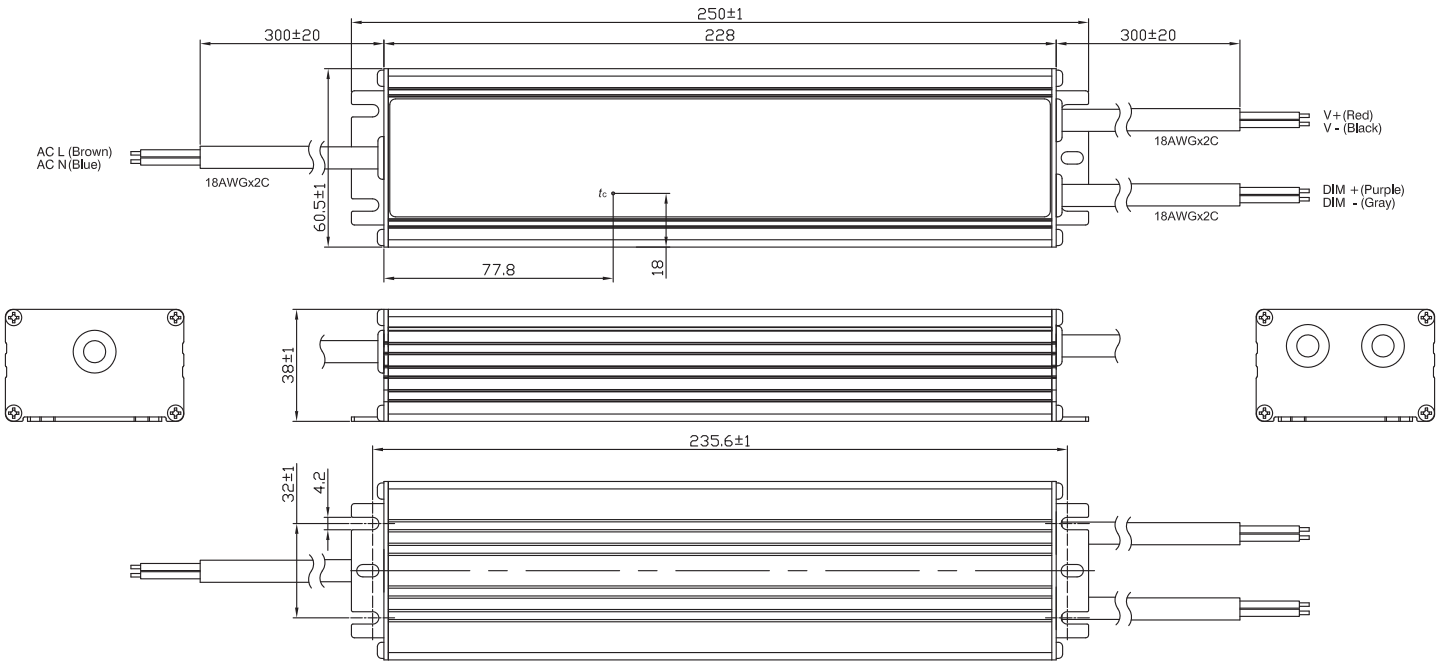


THD vs Input Voltage



V Type: (FSP150-FZAE(070/140/210)VG)

Unit: mm



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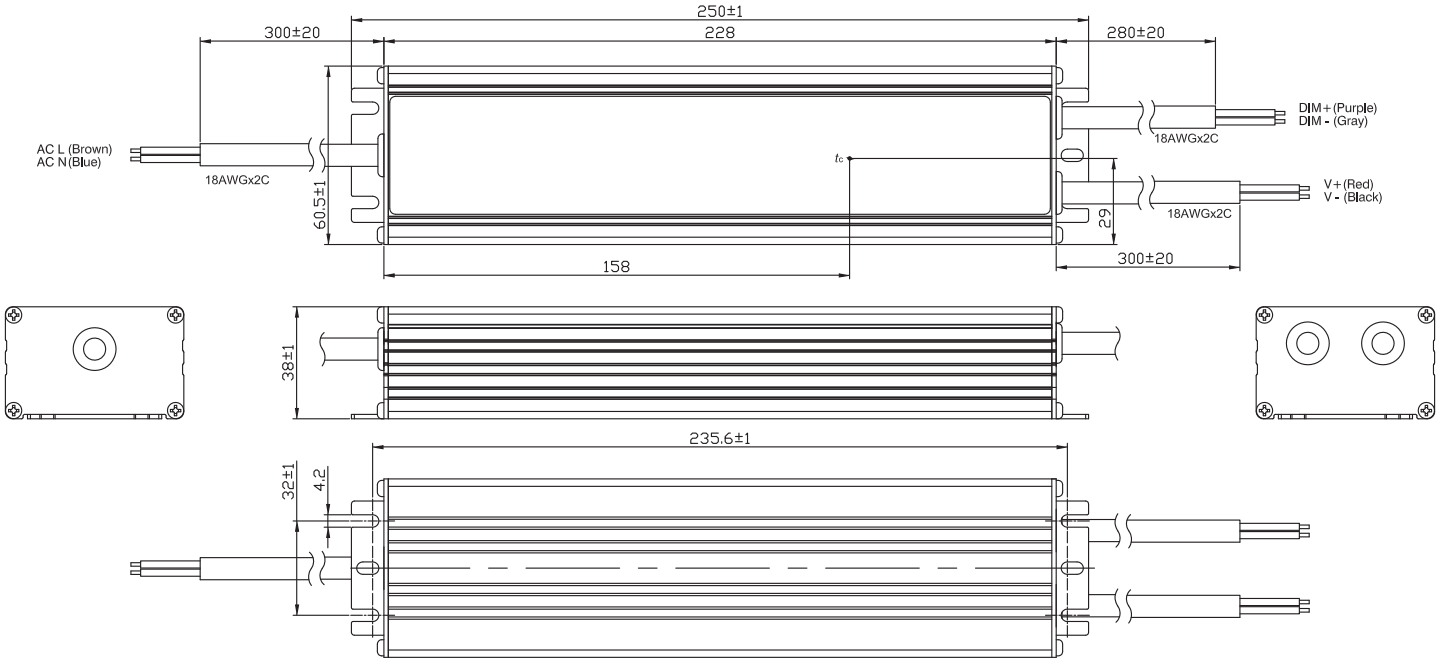
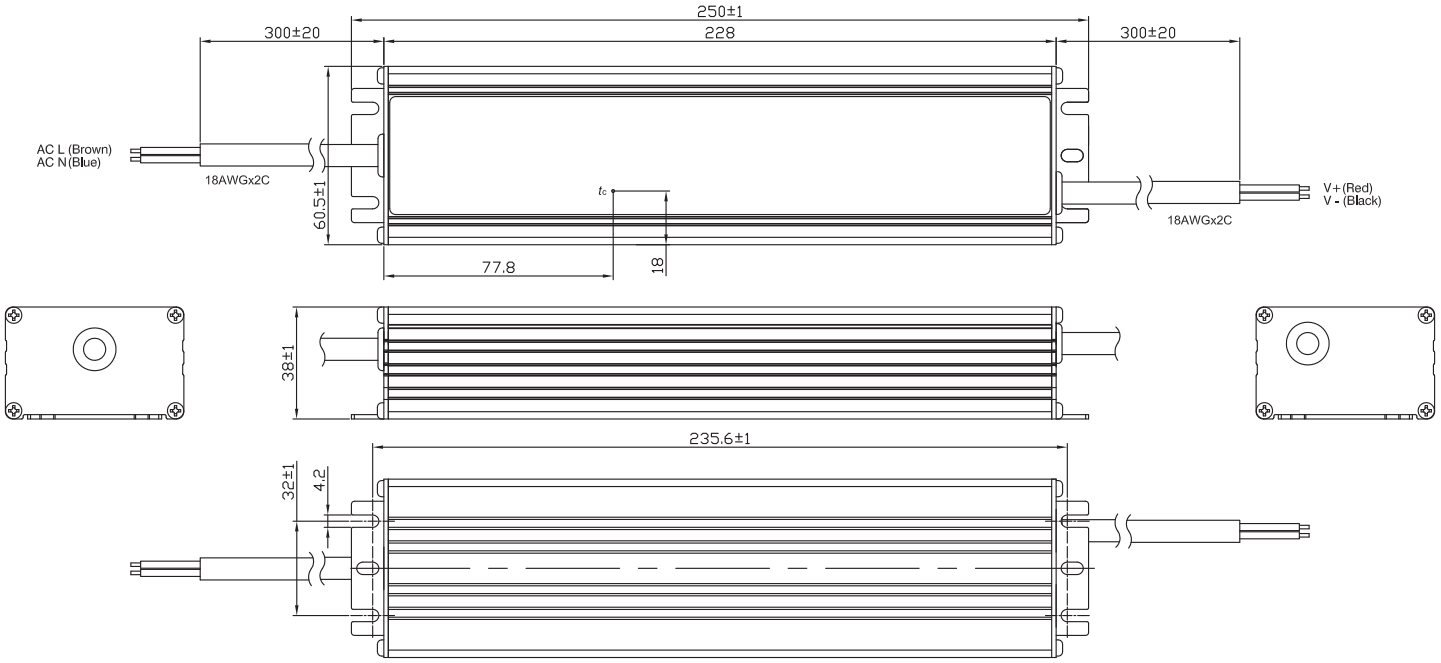
M Type: (FSP150-FZAE(280/315)MG)

Unit: mm



Blank Type: (FSP150-FZAE(070/140/210)G)

Unit: mm



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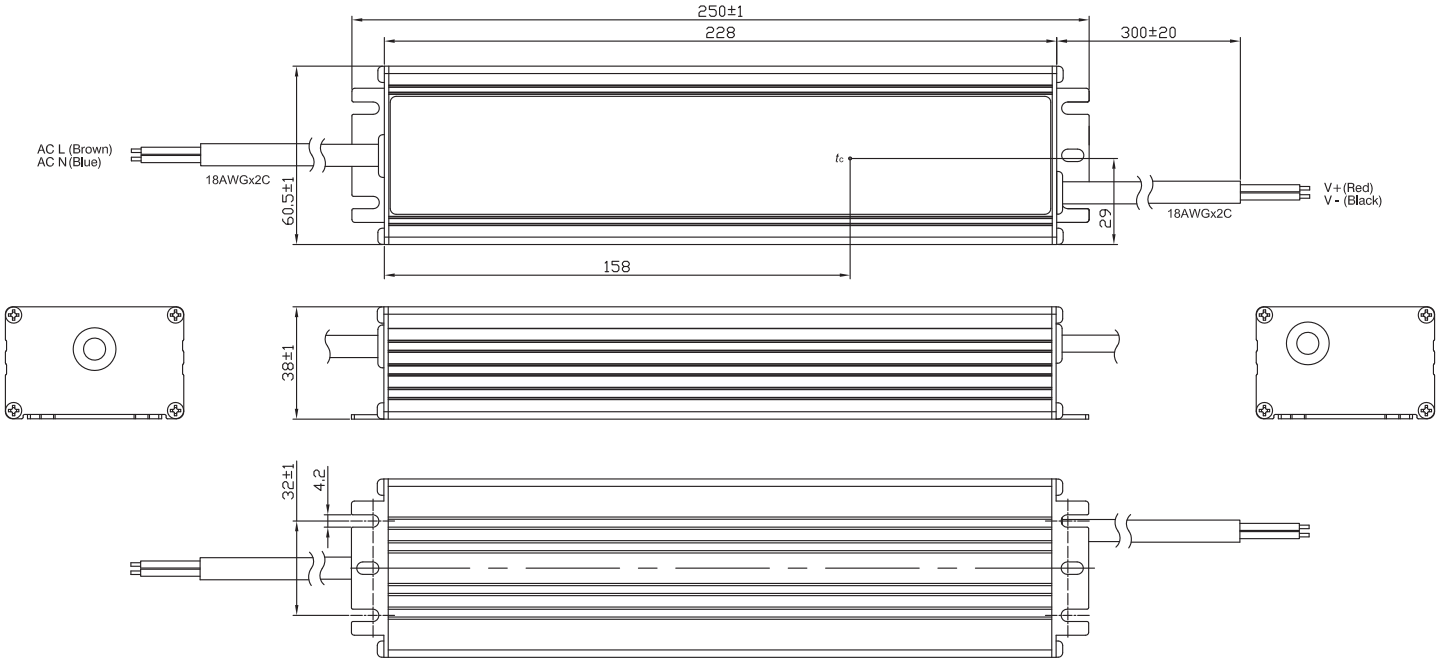
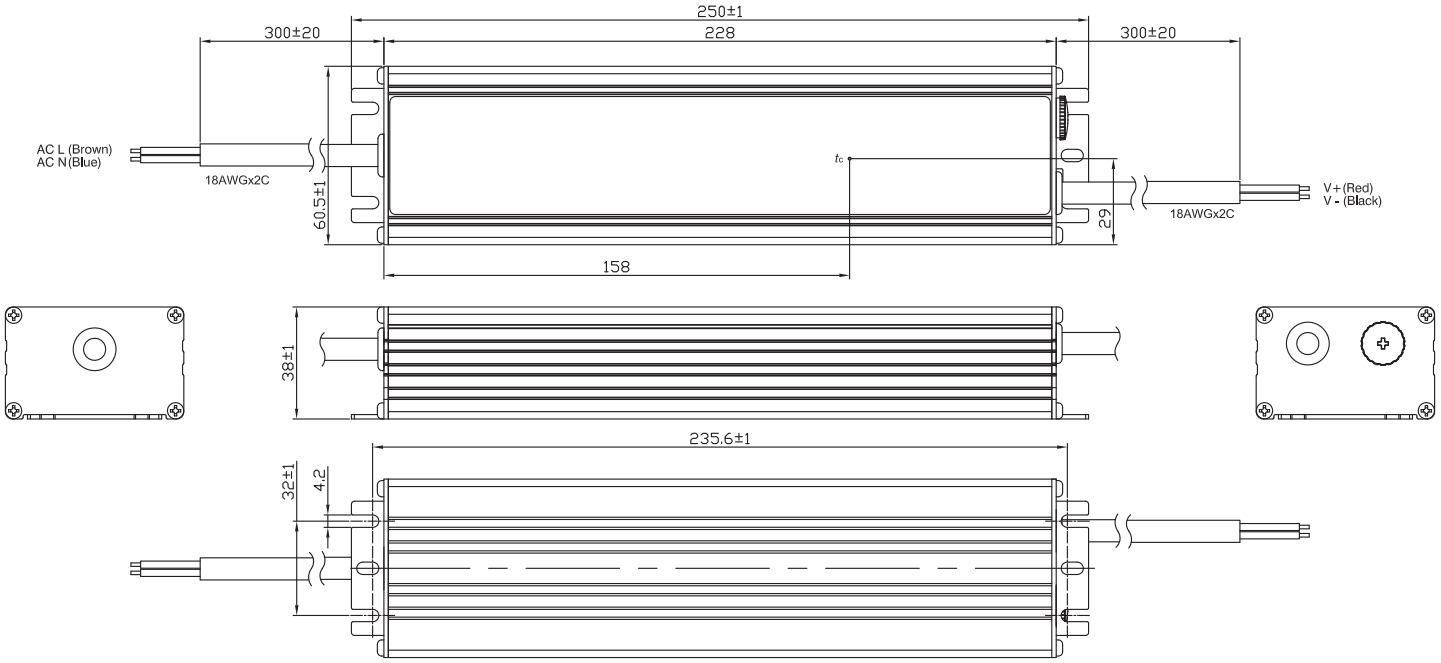
Blank Type: (FSP150-FZAE(280/315)G)

Unit: mm



R Type: (FSP150-FZAE(XXX)RG)

Unit: mm



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