



AL DHAW AL MATHALI LIGHTING EQUIPMENT TRADING L.L.C

INDUSTRIAL AREA 13, SHOP NO. B-6 TESHEEL PARKING SHARJAH, U.A.E

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300W Single output waterproof led driver (Constant Voltage Type)

FRU-300 Series



Features

1. 5 years warranty
2. High efficiency 89%
3. Smaller size
4. Economical design
5. Protections: Short-circuit /Over-load /Over-voltage /Over-temperature / Lightning protection
6. Working temperature : -25°C ~ + 50°C
7. IP67 design
8. 2~3 times burn-in tests (+40°C at full load with over 14 hours)

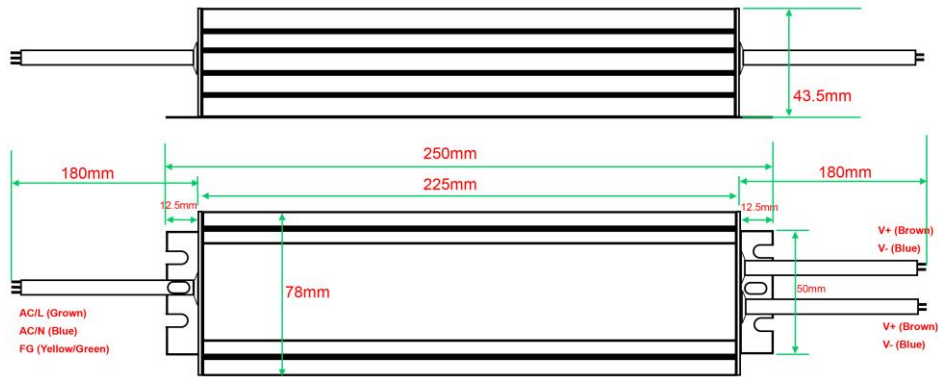
Application

Led strips, electronics display screen, outdoor instruments and machines.....etc

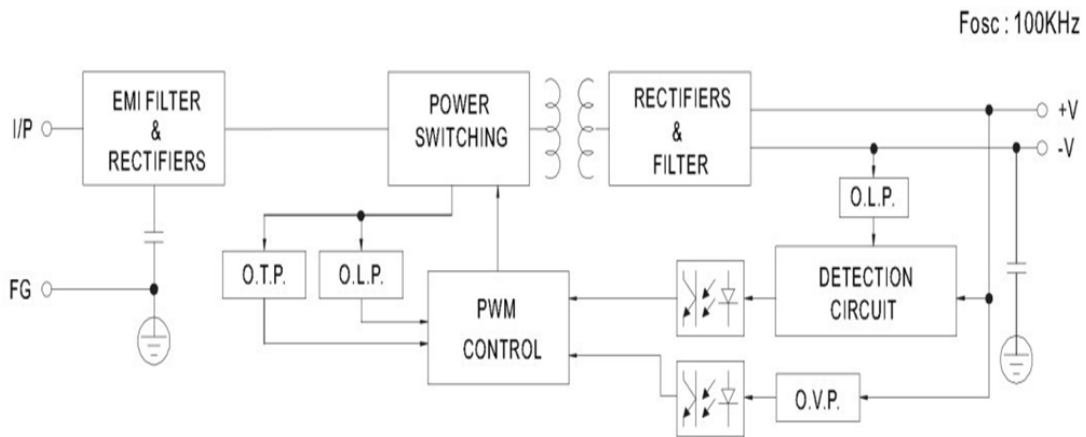
Specification Sheet

Model	FRU-300 Series	FRU-300-12	FRU-300-24	FRU-300-36
Output	Rated Voltage (Note 1)	12VDC	24VDC	36VDC
	Output Current Range	0 ~ 25.0A	0 ~ 12.5A	0 ~ 8.3A
	Rated Power	300W	300W	300W
	Ripple and Noise (Max)(Note 2)	120mVp-p	150mVp-p	150mVp-p
	Voltage Tolerance	±5.0%	±5.0%	±5.0%
	Line Regulation	±1%	±1%	±1%
	Load Regulation	±1.0%	±1.0%	±1.0%
	Set-up, Rise Time	1500ms 80ms/230VAC, 2000ms 80ms/110VAC		
Input	Hold-up Time	50ms/230VAC at full load, 25ms/110VAC at full load		
	Voltage Range	90~130VAC / 170~264VAC		
	Frequency Range	47~63Hz		
	Efficiency (Note 3)	89.0%	91.0%	92.0%
	AC Current	1.3A ~ 3.9A		
	Inrush Current	Cold Start at 70A/230VAC, Input at Ta: 25°C cold start.		
Protection	Leakage Current	< 0.5mA at 230VAC, 60Hz Input		
	Over-Voltage	110% ~ 130% (Shut down O/P voltage, repower on to recover)		
	Over-load	130% ~ 150% (Shut down O/P voltage, repower on to recover)		
	Short Circuit	Hiccup mode, recovers automatically after faulty problem is removed		
	Lightning Protection (Alternate)	Gas discharge tube automatically open to discharge, repower on to recover		
	Over-temperature	85°C±10°C (Shut down O/P voltage, re-power on to recover)		
Environment	Working Environment	-25°C ~ +50°C		
	Working Humidity	20~90% RH non-condensing		
	Storage Environment & Humidity	-30°C~+70°C		
	TEMP. Coefficient	±0.05%/°C (0~50°C)		
Safety & EMC	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
	Safety Standards	EN-61347-1, EN61347-2-13, IP67, ROHS Tests, Design refer to UL8750		
	Withstand Voltage	I/P-O/P: 3KVAC, I/P-FG:1.5KVAC, O/P-FG: 500VAC		
	Isolation Resistance	I/P-O/P I/P-FG O/P-FG: 100M Ohms/500VDC / 25°C / 70% RH		
Others	EMC Emission	Compliance to EN55015: 2007, EN61547:1995+A1:2000; EN61000-3-2: 2006; EN61000-3-3: 2008		
	Life Span (Note 5)	≥50000Hrs (25~30°C)		
	No Load power consumption	≤3.5W		
	MTBF (Note 6)	250K hrs min, MIL-HDBK-217F (25°C)		
	Dimension (Note 7)	250*78*43.5mm (L*W*H)		
	Packing (Note 8)	12pcs/carton		
Notes	Weight	1.6Kg/pcs		
	All parameter are measured at normal temperature (+25 ~ +28°C)			
	1. The rated voltage can be customized, such as 18V/27V... can be customized			
	2. Ripple & Noisy are measured at 20KHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47uf parallel capacitor (at full load)			
	3. The efficiency measured at Max output voltage, and 230VAC with full load, if with 110VAC the efficiency will be lowered 1% ~ 2%; Working 1~2 hours, efficiency will be higher 0.5% ~ 1% than the initial stage			
	4. This measured at 120VAC, 80%~85% load with environmental temperature about +25°C~+30°C, the outer housing temperature with +55°C or so			
	5. This measured at 120VAC, 80%~85% load with environmental temperature about +25°C~+30°C, the outer housing temperature with +55°C or so			
	6. More details see the following mechanical draft.			

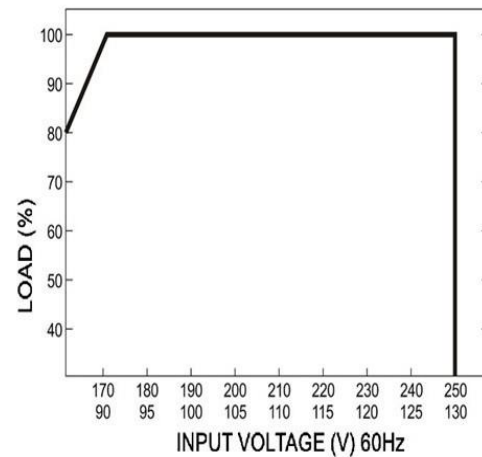
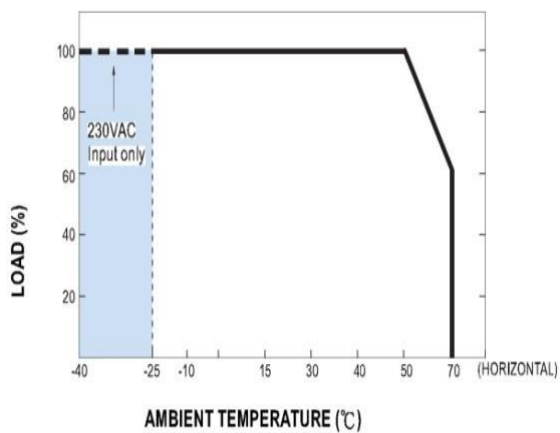
Mechanical Specification



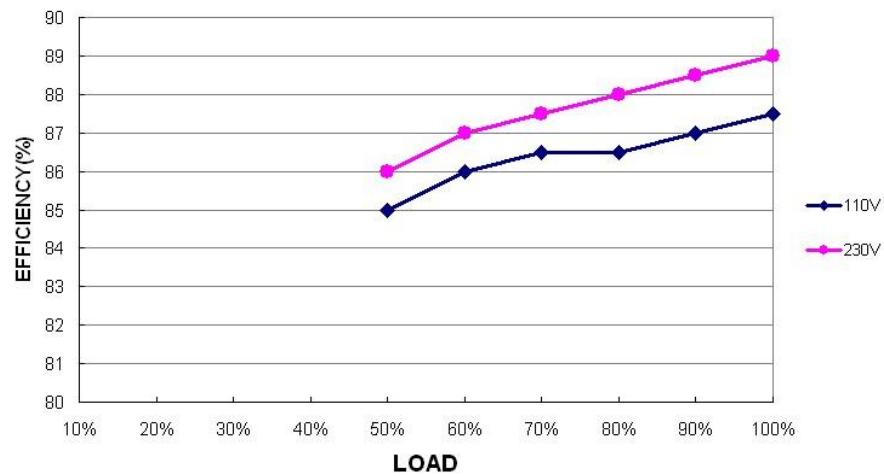
Block Diagram



Derating Curve



Efficiency & Load of (12V) (110VAC / 230VAC)



Waterproof connector (Alternative or customized)

The waterproof connector is usually used to easily assemble and replace in projects. It have waterproof performance when in use.

