



## Shenzhen Ottima Technology Co., Ltd.

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### 50W Single output Non-waterproof led driver (Constant Current Type)

#### OTM-50I Series

	<b>Features</b>
	1. 2 years warranty
	2. Efficiency $\geq 87\%$
	3. Active PFC $>0.95$ at 220VAC
	4. No pulsation
	5. Protections: Short-circuit /Over-load /Over-voltage /Over-temperature
	6. Working temperature : $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
	7. IP20 design
	8. 2~3 times burn-in tests ( $+50^{\circ}\text{C}/-40^{\circ}\text{C}$ at full load with over 14 hours)
	9. Economical design

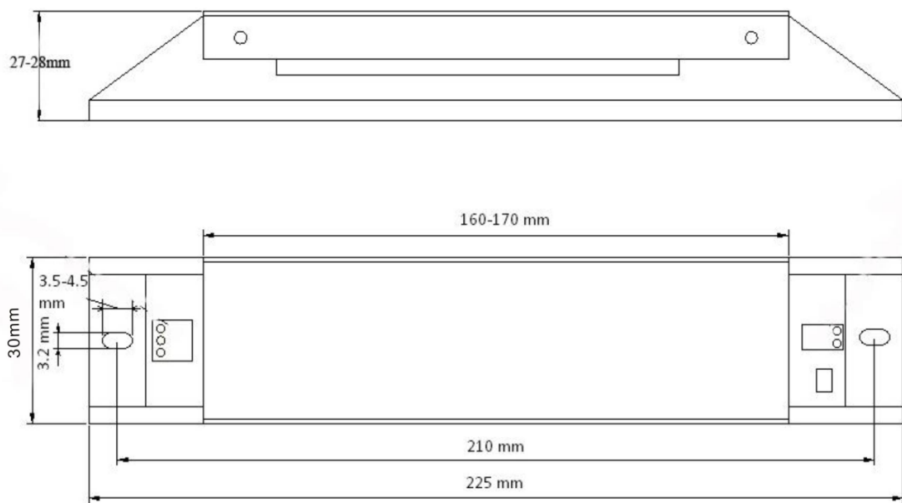
#### Application

LED electronic display screen, panel lights, led tubes, ceiling lights, led strips.....etc

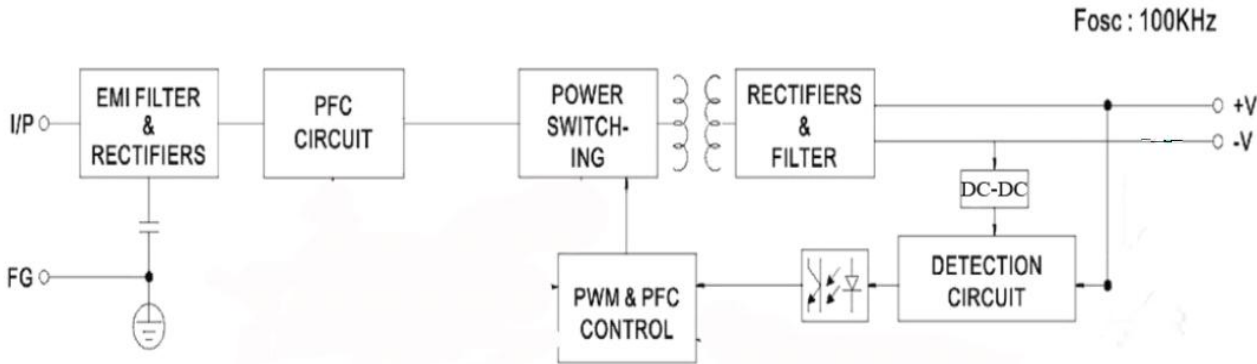
#### Specification Sheet

Model	OTM-50I Series	OTM-50-350I		OTM-50-450I		OTM-50-700I
Output	Rated Current (Note 1)	240~360mA		350~450mA		600~700mA
	Output voltage Range	70~142VDC		70~112VDC		40~70VDC
	Rated Power (Max)	50W		50W		50W
	Ripple and Noise (Max)(Note 2)	350mVp-p		350mVp-p		300mVp-p
	Voltage Tolerance	±3.0%		±3.0%		±3.0%
	Line Regulation	±1%		±1%		±1%
	Load Regulation	±1.0%		±1.0%		±1.0%
	Set-up, Rise Time	1500ms 80ms/230VAC, 2000ms 80ms/110VAC				
	Hold-up Time	50ms/230VAC at full load, 25ms/110VAC at full load				
Input	Voltage Range	170~264VAC or 90~132VAC				
	Frequency Range	47~63Hz				
	Efficiency (Note 3)	89.0%		89.0%		88.0%
	AC Current	0.27A ~ 0.17A				
	Inrush Current	Cold Start at 40A/230VAC, Input at Ta: 25℃ cold start.				
	Leakage Current	< 0.5mA at 230VAC, 60Hz Input				
	Protection	Current protection	±1% (current limiting type)			
Over-Voltage		110% ~ 130% (Shut down O/P voltage, repower on to recover)				
Over-load		110% ~ 130% (Shut down O/P voltage, repower on to recover)				
Short Circuit		Hiccup mode, recovers automatically after faulty problem is removed				
Over-temperature		85℃ ±10℃ (Shut down O/P voltage, re-power on to recover)				
Environment		Working Environment	-25℃ ~ +50℃			
	Working Humidity	20~90% RH non-condensing				
	Storage Environment & Humidity	-40℃ ~ +80℃				
	TEMP. Coefficient	±0.05%℃ (0~50℃)				
	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
Safety & EMC	Safety Standards	EN-61347-1, EN61347-2-13, ROHS Tests, Design refer to UL8750				
	Withstand Voltage	I/P-O/P: 3KVAC I/P-F/G:1.5KVAC O/P-F/G: 500VAC				
	Isolation Resistance	I/P-O/P IP-FG OP-FG: 100M Ohms/500VDC / 25℃ / 70% RH				
	EMC Emission	Compliance to EN55015: 2007, EN61547:1995+A1:2000; EN61000-3-2: 2006; EN61000-3-3: 2008				
Others	Life Span (Note 4)	≥50000Hrs (25~30℃)				
	No Load power consumption	≤1.0W				
	MTBF (Note 5)	250K hrs min, MIL-HDBK-217F (25℃ )				
	Dimension (Note 6)	225*30*28 mm / 238*36*30mm (L*W*H)				
	Packing	50pcs/carton				
	Weight	0.21Kg/pcs				
Notes	All parameter are measured at normal temperature (+25 ~ +28℃)					
	1. The rated current can be customized between 300mA~700mA					
	2. Ripple & Noise 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% ~ 1.5%; Working 1~2 hours, efficiency will be increase up 0.5% ~ 1% than the initial stage					
	4. This measured at 120VAC, 80% ~85% load with environmental temperature about +25℃~+30℃, the outer housing temperature with +55℃ or so.					
	5. This measured at 120VAC, 80% ~85% load with environmental temperature about +25℃~+30℃, the outer housing temperature with +55℃ or so.					
	6. More details see the following mechanical draft.					

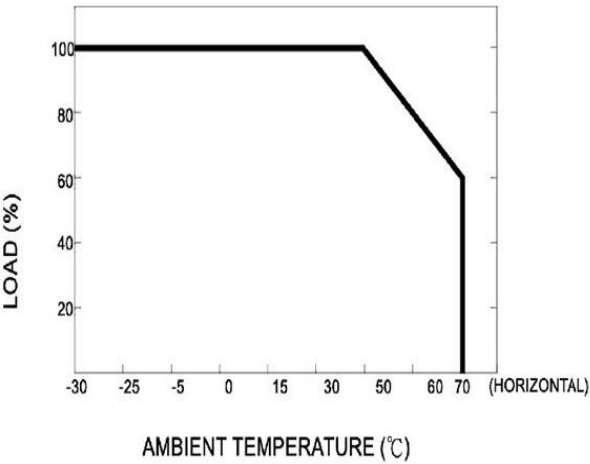
Mechanical Specification



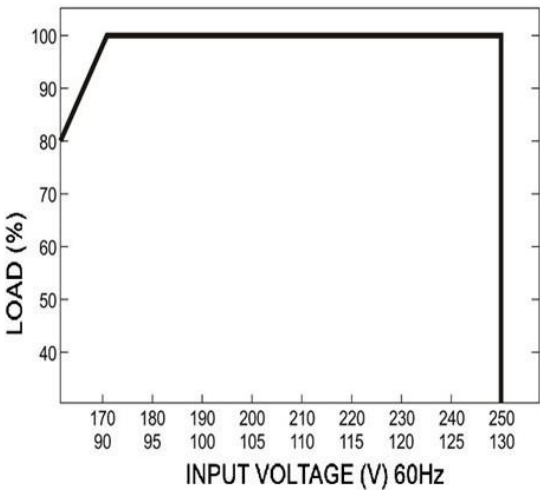
Block Diagram



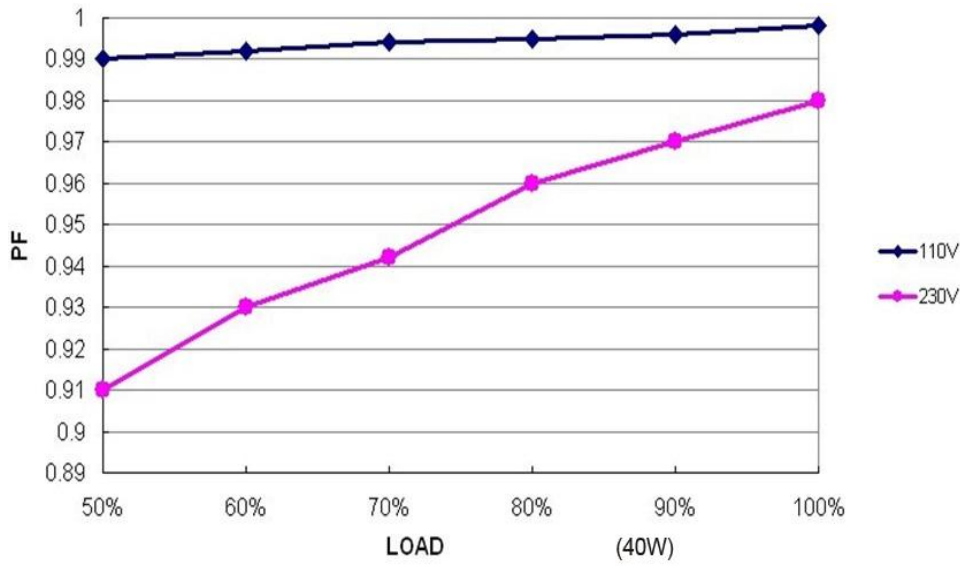
Derating Curve



Static Characteristics



Power Factor Characteristics



Efficiency & Load of (350mA) (110VAC / 230VAC)

