S.M.P.S	**LED Converter**	**Water Proof Converter**

10W2(V1) Series

10W single output
with constant voltage circuit

● **Constant voltage design(C.V. mode)**
● **AC Input voltage 160-277V**
● **Protections:**
   Over load/Over voltage /Short circuit
● **IP68 design for outdoor installations**
● **100% full load burn-in test**
● **Suitable for LED lighting and moving**
   sign applications
● **Plastic case**
● **Safety standards : EN61347-1,EN61347-2-13**
   /K61347-1,K61347-2-13
● **EMC standards : EN55022,EN61204-3,**
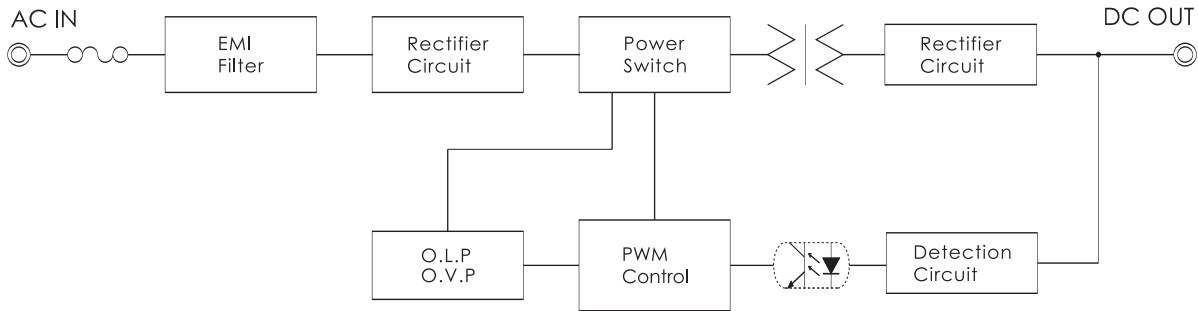   **EN61000-3-2,3/K00015,K61547**
● **3years warranty**

IP68 ☐ ▽F ▽M ▽M SELV **LPS CB** CE

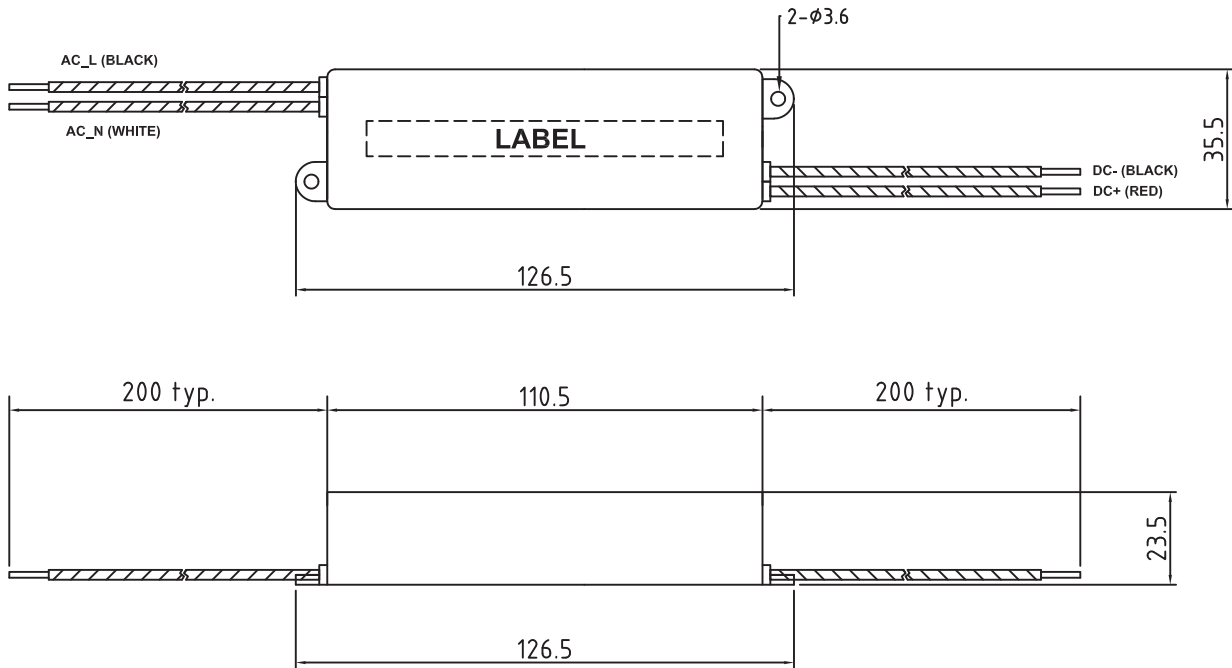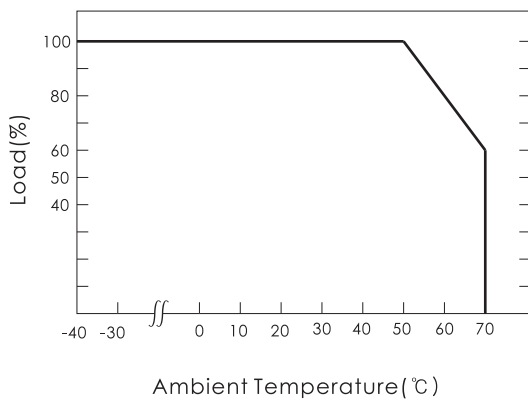|	ITEM	UP10S12W2(V1)	UP10S24W2(V1)
INPUT	VOLTAGE RANGE	AC160~277V	
	FREQUENCY RANGE	47~63Hz	
	EFFICIENCY(typ.)	81%	81%
	AC CURRENT(typ.)	0.1A/230VAC	
	INRUSH CURRENT(typ.)	COLD START 60A/230VAC	
OUTPUT	DC VOLTAGE	12V	24V
	RATED CURRENT	0.83A	0.41A
	RATED POWER	10W	10W
	RIPPLE&NOISE(max.) Note2	220mVp-p	290mVp-p
	VOLTAGE TOLERANCE Note3	±3%	±3%
	LINE REGULATION Note4	±1%	±1%
	LOAD REGULATION Note5	±2%	±2%
	SETUP,RISE TIME(max.)	3000ms,100ms/230VAC at full load	
	HOLD UP TIME(typ.)	30ms/230VAC at full load	
PROTEC-TION	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed	
	OVERLOAD	Over 110% of rating ; recovers automatically after fault condition is removed	
	OVER VOLTAGE	Over 110% of rating ; recovers automatically after fault condition is removed	
ISOLA-TION	WITHSTAND VOLTAGE	I/P-O/P:AC3KV	
	ISOLATION RESISTANCE	I/P-O/P : DC500V 100Mohms(At room temp. & humid.)	
ENVIRON-MENT	WORKING TEMP.&HUMID.	-40~+70℃(Refer to "DERATING CURVE"),20~95%RH	
	STORAGE TEMP.&HUMID.	-40~+75℃,10~95%RH	
	VIBRATION	10~500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	
OTHERS	DIMENSION/WEIGHT	126.5*35.5*23.5mm(L*W*H)/0.08Kg	
NOTE		1. All parameters not specially mentioned are measured at 230Vac input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pare-wire terminated with 0.1 uF & 47uF parallel capacitor. 3. Tolerance : includes set up tolrance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from low 0% to 100% rated load.	

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■ BLOCK DIAGRAM

AC IN

EMI Filter → Rectifier Circuit → Power Switch → Rectifier Circuit → DC OUT

O.L.P O.V.P ← PWM Control ← Detection Circuit

■ DIMENSIONS(unit:mm)

AC_L (BLACK)
AC_N (WHITE)

2-φ3.6

LABEL

35.5

DC- (BLACK)
DC+ (RED)

126.5

200 typ.   110.5   200 typ.

23.5

126.5

■ DERATING CURVE

Load(%)

100
80
60
50
40

-40 -30   0 10 20 30 40 50 60 70

Ambient Temperature(℃)

■ STATIC CHARACTERISTICS

Load(%)

100
80
60
50
40

160   180   220   277

Input Voltage(Vac), 60Hz