



LED Driver

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SPECIFICATION

MODEL : STIFP218750N024KOR

CUSTOMER :	
CHECKED	APPROVED
20 . . .	20 . . .

SAMSUNG			
DRAWN	CHECKED		APPROVED
	SALES	QA	
20 . . .	20 . . .	20 . . .	20 . . .

SAMSUNG ELECTRONICS CO., LTD.
SAMSUNG #2, NONGSEO-DONG, GIHEUNG-GU,
YONGIN-CITY, GYEONGGI-DO, KOREA, 446-711

SPECIFICATION No.	
DATE OF ISSUE	2013. 07. 22



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REVISION OF SPECIFICATION

	00	The First Specification established.		2013.07.22	SC.Kwon	CH,Baek
SYMBOL	REV	REVISION	PAGE	DATE	TRACED	APPRO.



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LED Driver

1. APPLICATION

This specification defines the general specification and performance of the Non Dimming driver.

2. FUNDAMENTAL SPECIFICATION

No.	ARTICLE	SPECIFICATION
2-1	PSU (Power Supply Unit)	<ul style="list-style-type: none"> Dimensions : 212 × 41 × 30.5mm(length / Width / Height) (Tol: ±2.0mm) Input Power Maximum Consumption (50W) Input Voltage (220Vac ~ 240Vac) Output Current (50W : 840mA ± 5%) Output Voltage (24Vdc)
2-2	Weight	<ul style="list-style-type: none"> 220 ± 30g
2-3	Ambient Temperature (Ta)	<ul style="list-style-type: none"> -20[°C] ~ +50[°C], Surrounding Temp. of LED Driver within Fixture
2-4	Storage Temperature	<ul style="list-style-type: none"> -40[°C] ~ 85[°C]
2-5	Listings	<ul style="list-style-type: none"> CE / ENEC / VDE / KC
2-6	EMI	<ul style="list-style-type: none"> EN55015
2-7	Surge	<ul style="list-style-type: none"> IEC 61547
2-8	Hi-Pot	<ul style="list-style-type: none"> IEC 61347-1 , IEC 61347-2-13
2-9	Hazardous Substances in Products	<ul style="list-style-type: none"> RoHS compliant, REACH , WEEE
2-10	Lifetime	<ul style="list-style-type: none"> 50,000hr(MTBF)

3. APPEARANCE AND STRUCTURE

No.	ARTICLE	SPECIFICATION
3-1	Appearance	See the Appendix 1
3-2	Structure	See the Appendix 1



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4. PERFORMANCE

- Electric Specification

No.	ARTICLE	SPECIFICATION					
		Symbol	Min.	Typ.	Max.	Unit	Remarks
4-1	Power Consumption	P	41	46	51	W	Vac=240V/50Hz @24.0V, measured with electronic load
4-2	Input Current	I	0.13	-	0.25	A	Each channel Vac=240V/50Hz @24.0V
4-3	Output Current	Io	798	840	882	mA	Each channel Vac=240V/50Hz @24.0V
4-4	Output Voltage	Vo	20	24	26	Vdc	Each channel
4-5	Efficiency	-	84	87	-	%	Vac=240V/50Hz @24.0V
4-6	Power Factor	PF	0.9	-	-	-	Vac=240V/50Hz @24.0V
4-7	THD	%	-	10	15	%	Vac=240V/50Hz @24.0V
4-8	Turn On Time				0.5	sec	Vac=240V/50Hz @24.0V, measured with electronic load
4-9	Ripple Current				30	%	Output current \pm 30%
4-10	Inrush current	Ipeak			20	A	
		Tduration			300	μ S	@50% of Ipeak
4-11	No load Power consumption	-	-	-	1	W	@no load
4-12	O.V.P	-	-	-	43	V	Auto Recovery
4-13	O.T.P	-	-	-	150	℃	Auto Recovery
4-14	Ambient Temperature	-	-20	-	50	℃	
4-15	Case Temperature	-			85	℃	Case of LED Driver
4-16	Lifetime(E-cap)		50,000			hour	MTBF

※ Keep the same Tc with fixture or without fixture

※ E-Load Condition : LED & CR Mode



LED Driver

- Final Test Items

No.	ARTICLE	SPECIFICATION					
		Symbol	Min.	Typ.	Max.	Unit	Remarks
4-1	Power Consumption	P	41	46	51	W	Vac=240V/60Hz @24V
4-2	Output Current	I _o	798	840	882	mA	2 channel
4-3	Output Voltage	V _o	20	24	26	Vdc	2 channel
4-4	Efficiency	-	84	87	-	%	Vac=240V/60Hz @24V
4-5	Power Factor	PF	0.9	-	-	-	Vac=240V/60Hz @24V
4-6	THD	%	-	10	15	%	Vac=240V/60Hz @24V

※ All Test Results are recorded with 100% Products

※ E-Load Condition : LED & CR Mode



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5. STANDARD TESTING CONDITION

5-1 Standard testing environment

Generally all tests are performed in normal room temperature and humidity. If the problem occurs, re-tests are performed at $25\pm 3^{\circ}\text{C}$ and $60\pm 5\%$ relative humidity.

5-2 Standard testing method

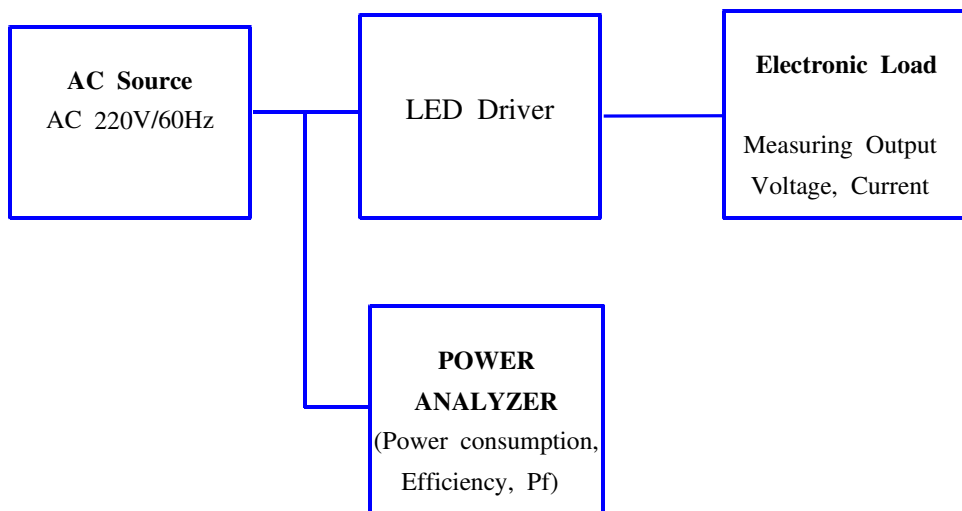
1) Testing equipment

Type	Company	Model (Reference)
AC Input Driver	Chroma	AC Source 61504
Power Consumption measuring equipment	YOKOGAWA	PRECISION POWER ANALYZER WT3000
Electrical Load	Chroma	DC Electronic Load 63110A

2) Testing equipment Condition

Measuring Equipment	Condition
AC Source	AC 220V / 60Hz
DC Electronic Load	DC Electronic load, @ 24.5V, LED & CR Mode

3) Measurement Method





LED Driver

6. PRECAUTIONS IN HANDLING

- 1) This LED Driver is only for 50W Non Dimming driver.
- 2) Handling

To prevent the LED Driver from any defect, please handle it with care as follows.

 - a. Don't drop the unit and don't give the unit any shocks.
 - b. Don't store the product in a dusty place or room.
 - c. Don't take the product apart.
 - d. Don't pull wire with hand in case of carry or move the product.
- 3) Static Electricity

Static electricity or surge voltage damages the LED Driver. Please keep the working process anti-static electricity condition to prevent the luminaire from damage.

 - a. Anyone who handles the unit should be well grounded. (earth ring or anti-static glove)
 - b. Anyone who handles the unit should wear anti-electrostatic working clothes.
 - c. All kinds of device and instruments, such as working table, measuring instruments and assembly jigs in production line should be well grounded.
- 4) Others
 - a. If over voltage which exceeds the absolute maximum rating is applied to LED Driver, it will cause damaging circuits and result in malfunction.
 - b. Do not use the mixed polarity of Ch1 and Ch2.

Module Interface			
Module1		Module2	
Ch1 +	Ch1 -	Ch2+	Ch2-

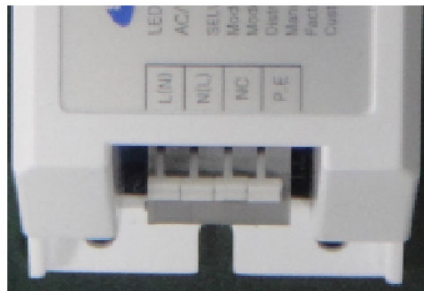


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7. TERMINAL INFORMATION

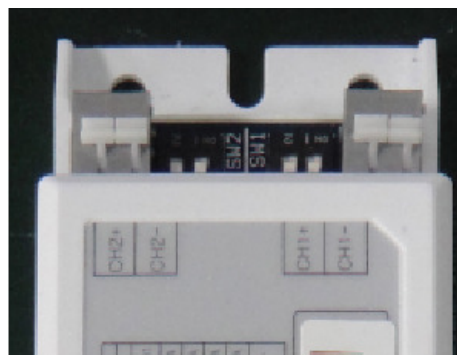
1) Input Interface

PIN	SYMBOL	COLOR	DESCRIPTION
1	Live	Gray	AC Input
2	Neutral	Gray	AC Input
3	NC	Gray	No Connect
4	P.E	Gray	Protective Earth



2) Output Interface

PIN	SYMBOL	COLOR	DESCRIPTION
2	CH2 +	Gray	Positive(Anode) LED output(CH2+)
1	CH2 -	Gray	Negative(Cathode) LED output(CH2-)
3	CH1 +	Gray	Positive(Anode) LED output(CH1+)
4	CH1 -	Gray	Negative(Cathode) LED output(CH1-)





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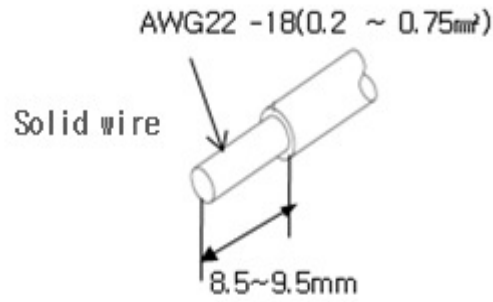
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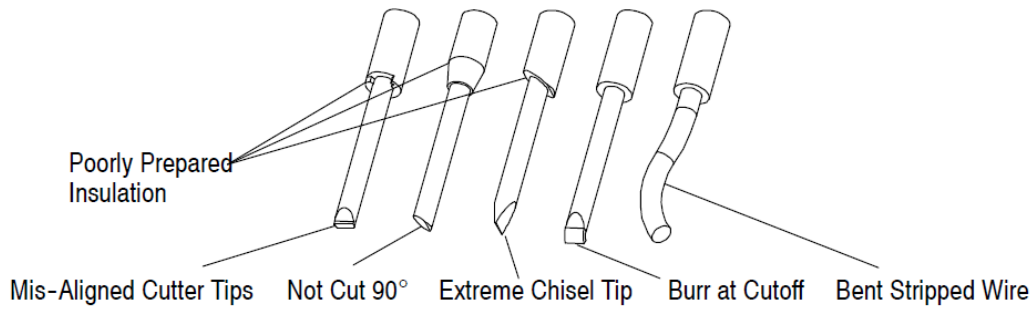
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8. WIRE SELECTION AND PREPARATION

1) Acceptable



2) Non-Acceptable





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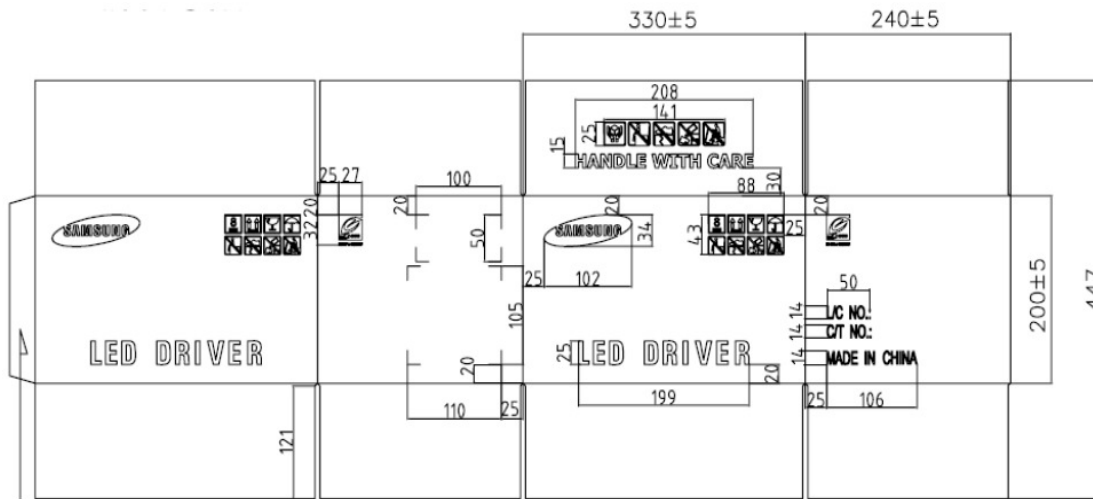
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9. PACKING SPECIFICATION

1) Out Box



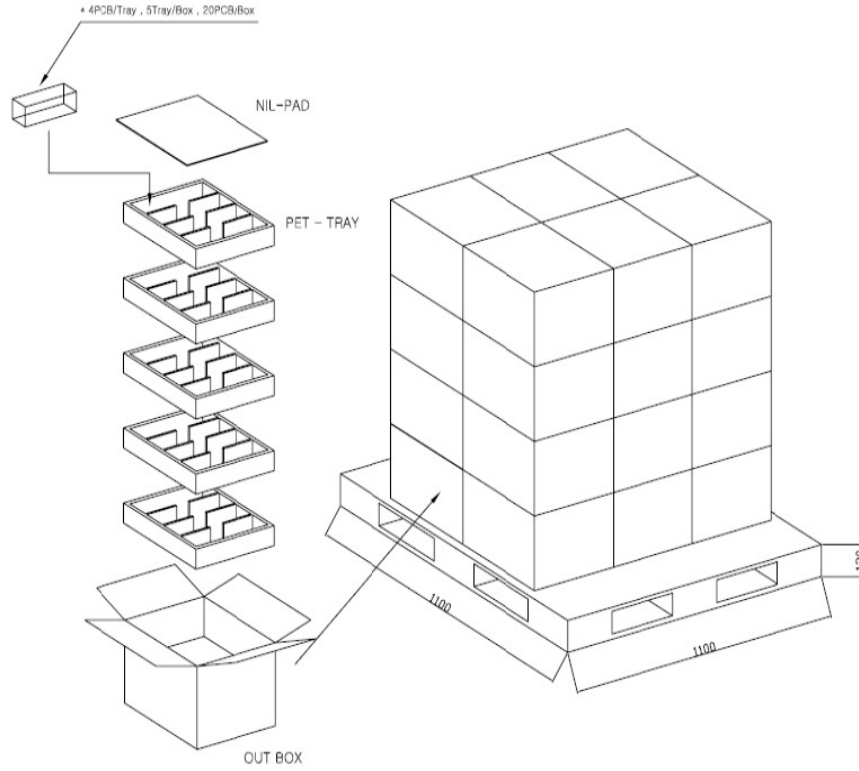
2) Nil-Pad



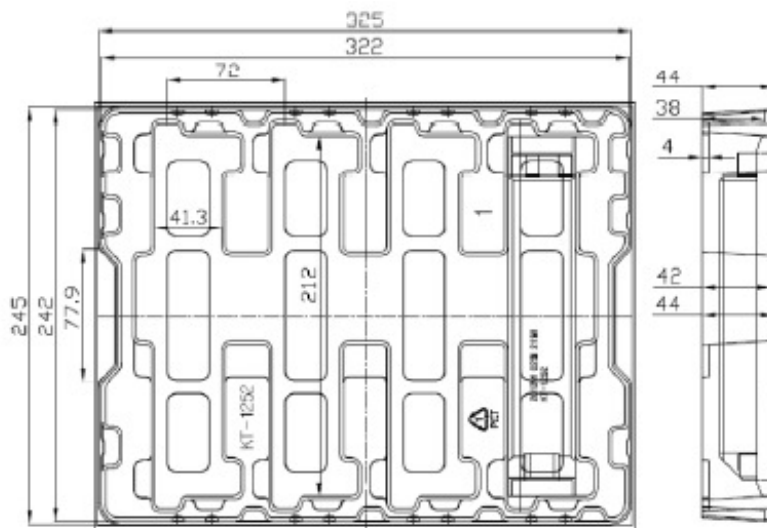


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3) Stock Pattern



4) Tray





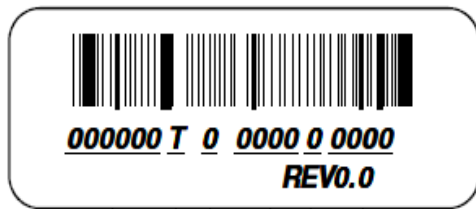
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APPENDIX 2. Label Drawing

1) Main Label

<table border="1"> <tr><td>L(N)</td></tr> <tr><td>N(L)</td></tr> <tr><td>NC</td></tr> <tr><td>P.E</td></tr> </table>	L(N)	N(L)	NC	P.E	<p>조명기구용컨버터(LED램프용) AC/DC LED전원 공급장치</p> <p>SELV-동등</p> <p>모델 코드 : ST1FP218750N024KOR</p> <p>모델명 : KLP-AD050H-02NDK</p> <p>판매사 : SAMSUNG ELECTRONICS Co., Ltd.</p> <p>제조사 : Qingdao Fuyuan Electronics Co., Ltd.(중국)</p> <p>A/S연락처 : +82-55-290-7487 (한국태양유전)</p> <p>※ 본 제품은 LED컨버터로서 LED램프 전용 제품임.</p>	<table border="1"> <tr><td>정격입력전력</td><td>50W</td></tr> <tr><td>정격입력전압</td><td>220-240V~</td></tr> <tr><td>정격입력전류</td><td>0.22A</td></tr> <tr><td>정격입력주파수</td><td>50/60Hz</td></tr> <tr><td>효율</td><td>λ=0.95</td></tr> <tr><td>최고동작온도(Ta)</td><td>-20℃ ~ +50℃</td></tr> <tr><td>Case온도(To)</td><td>85℃ Max</td></tr> <tr><td>출력유형</td><td>정전류방식</td></tr> <tr><td>최대출력전압(최부하)</td><td>DC 40V(1채널당)</td></tr> <tr><td>정격출력전압</td><td>DC 24V(1채널당)</td></tr> <tr><td>정격출력전류</td><td>DC 0.84A(1채널당)</td></tr> </table>	정격입력전력	50W	정격입력전압	220-240V~	정격입력전류	0.22A	정격입력주파수	50/60Hz	효율	λ=0.95	최고동작온도(Ta)	-20℃ ~ +50℃	Case온도(To)	85℃ Max	출력유형	정전류방식	최대출력전압(최부하)	DC 40V(1채널당)	정격출력전압	DC 24V(1채널당)	정격출력전류	DC 0.84A(1채널당)	<p>Block Connection</p>	<table border="1"> <thead> <tr> <th rowspan="2">Input Power</th> <th colspan="2">CH1</th> <th colspan="2">CH2</th> </tr> <tr> <th>SW1</th> <th>Current</th> <th>SW2</th> <th>Current</th> </tr> </thead> <tbody> <tr> <td>35W</td> <td>DN</td> <td>830mA</td> <td>DN</td> <td>830mA</td> </tr> <tr> <td>40W</td> <td>DN</td> <td>700mA</td> <td>DN</td> <td>700mA</td> </tr> <tr> <td>45W</td> <td>DN</td> <td>770mA</td> <td>DN</td> <td>770mA</td> </tr> <tr> <td>50W</td> <td>DN</td> <td>840mA</td> <td>DN</td> <td>840mA</td> </tr> </tbody> </table> <p>Before use, always check dipswitch settings. SW1, SW2 must be set the same condition.</p>	Input Power	CH1		CH2		SW1	Current	SW2	Current	35W	DN	830mA	DN	830mA	40W	DN	700mA	DN	700mA	45W	DN	770mA	DN	770mA	50W	DN	840mA	DN	840mA	<table border="1"> <tr><td>CH2+</td></tr> <tr><td>CH2-</td></tr> <tr><td>CH1+</td></tr> <tr><td>CH1-</td></tr> </table>	CH2+	CH2-	CH1+	CH1-
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CH1-																																																																
	<p>※ 본 제품은 LED컨버터로서 LED램프 전용 제품임.</p> <p>Made in China</p>		<p>S/N</p>																																																													

2) Barcode Label



- Serial Number : 0000~9999
- Revision : PCB Revision(1=>REV 1.0)
- ITEM Name : 4digit
- Manufactured Factory(M:Korea Taiyo Yuden, E:Chiness EMS)
- Manufactured Maker(T:Taiyo Yuden)
- Manufactured Year/Month/Day