LED Driver

PMD 75W Programmable - Multichannel Driver SLP-DUA47531WW

Constant Current LED Driver
Wide Operating Range up to 1.4 A – Programmable

Features & Benefits

- Output Current Range: 0.35 ~ 1.4 A (adjustable via programmer)
- Output Voltage Range: 20 ~ 50 Vdc
- Output Power Range: Max 75 W
- Dimming Control: DALI, 1-10V smart dimming down to 1 %
- Input Voltage: 120 ~ 277 Vac , 50/60Hz
- Safety : EN 61347
- EMC : EN 55015 , EN 61547
- Protections: Short Circuit, Over Temperature, Over Voltage(No load Protection)
- t_a Range: -20 ~ +50 °C
- Expected Lifetime: 50,000 hours at t_c = 70 °C
- Long lasting & high reliability
- white metal housing
- Double output connectors (2channel)
- Very low output current ripple
- Easy setting current

Applications

- Ambient Lighting (Linear and Area) and other Indoor Lighting Applications
- Office – Industry – Shop

Table of Contents

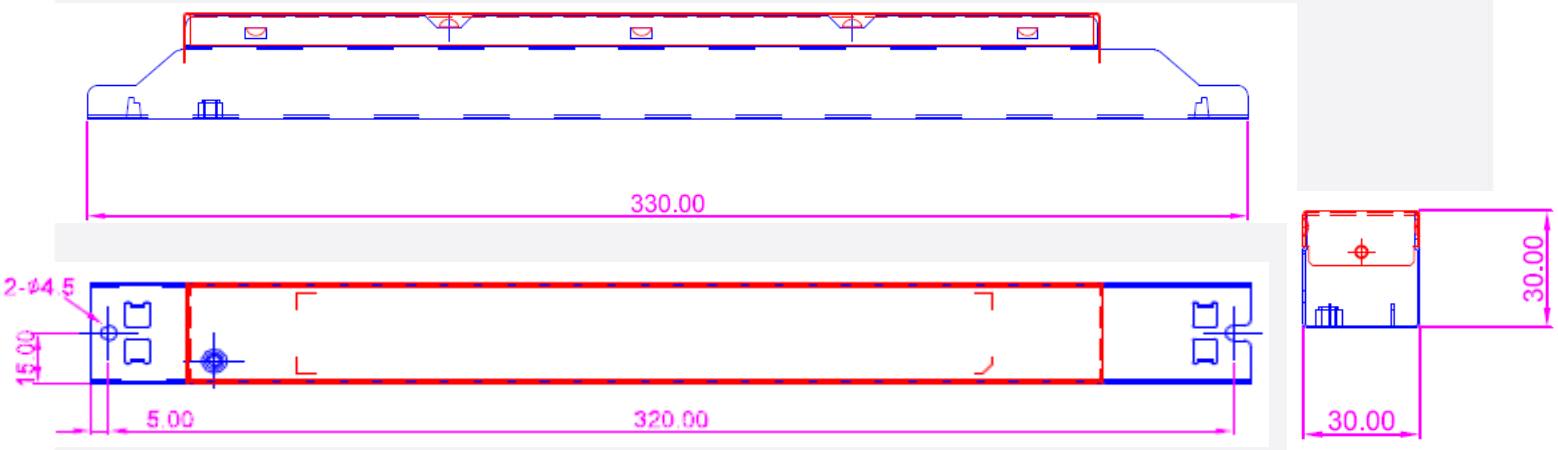
1. Characteristics

Article	Symbol	Specification			Unit	Note
		Min.	Typ.	Max.		
INPUT SPECIFICATIONS						
Nominal Voltage	Vin	120		277	Vac	Full input range
Voltage Range		108		305	Vac	
Nominal Frequency	fin	50		60	Hz	
Frequency Range		47		63	Hz	
Input Current	Iin			0.95	A	At 120Vac
	Iin			0.2	A	At 277Vac
Total Harmonic Distortion	THD			20	%	At full load, 120-277 Vac
Power Factor	PF	0.9			-	At full load, 120 V-277Vac
Efficiency	H	83	88		%	At full load, 120-277 Vac,
Protection Class			I		-	PE can be connected to either terminal or housing
Inrush Current				20	A_{pk}	t_{width} = 300 μs typ. (at 50% Ipeak)
OUTPUT SPECIFICATIONS						
Nominal Voltage	Vo	20		50	Vdc	See graph
Nominal Current	Io	0.35		1.4	A	2channel(±5 % tolerance) Can be programmable RS485
Current Ripple				30	%	Output current ± 30%
Nominal Power	Po			75	W	Output wattage(See graph)
Auxiliary Power			24		V	For nIO Supply Power
				100	mA	For nIO Supply power
Turn on delay time	Td			1.0	s	AC on 90%

Article		Symbol	Specification			Unit	Note
			Min.	Typ.	Max.		
DIMMING SPECIFICATIONS							
Dimming Control 1				DALI			Digital
Range				1-100		%	
Dimming Control 2				1 - 10			Analog
Range				1-100		%	
Dimming Technique				PWM			
Galvanic Isolation				Basic / Double			Basic: DALI to primary-earth Double: DALI to secondary
ENVIRONMENTAL SPECIFICATIONS							
Ambient Temperature		t_a	-20		50	ºC	
Case Temperature		t_c			70	ºC	Measured at t_c point as indicated on the product label
Storage Temperature		t_s	-20		85	ºC	Cool down before operating
Relative Humidity			20		95	%	Not condensing
Surge Transient Protection	L / N				±2	kV	According to EN 61547
	LN / GND				±4	kV	
IP Rating				20		-	Suitable for indoor environment
Expected Lifetime			50,000			h	t_c = 70 ºC , full load
Dimensions		L x W x H		330 x 30 x 30		mm	
Net Weight				300		g	± 10%

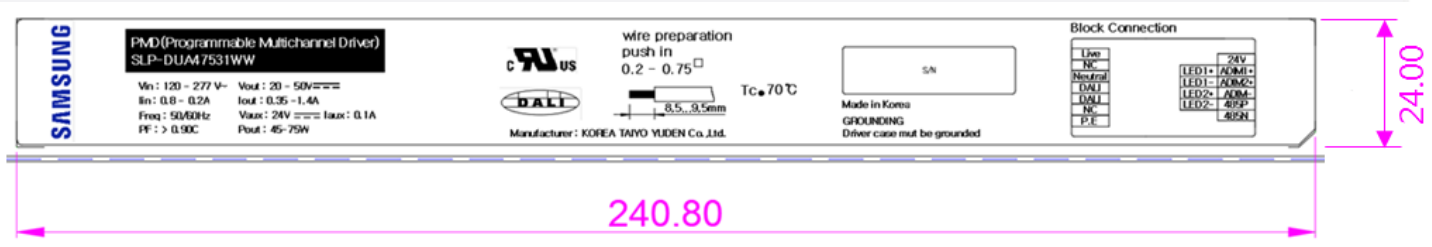
2. Outline Drawing & Dimension

Dimension(mm)



Pin	Symbol	Color	Description	Connector
Input Connector				
1	L	Black	Live	Degson
2	NC	Gray	NC	Degson
3	N	White	Neutral	Degson
4	DALI	Yellow	DALI	Degson
5	DALI	Yellow	DALI	Degson
6	NC	Gray	NC	Degson
7	PE	Green	Ground	Degson
Output Connector1				
1	LED1+	Red	LED output1+	Degson
2	LED1-	Black	LED output1-	Degson
3	LED2+	Grey	LED output2+	Degson
4	LED2-	Black	LED output2-	Degson
Output Connector2				
1	24V	Red	Auxiiliary 24V	Degson
2	ADim1+	Black	Dimming input port1	Degson
3	ADim2+	Gray	Dimming input port2	Degson
4	ADIM-	Purple	GND	Degson
5	485+	Yellow	Program Port+	Degson
6	485-	Yellow	Program Port-	Degson

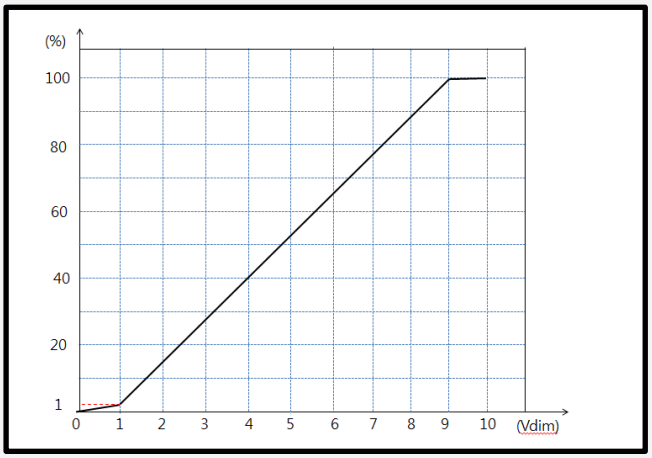
3. Label Structure



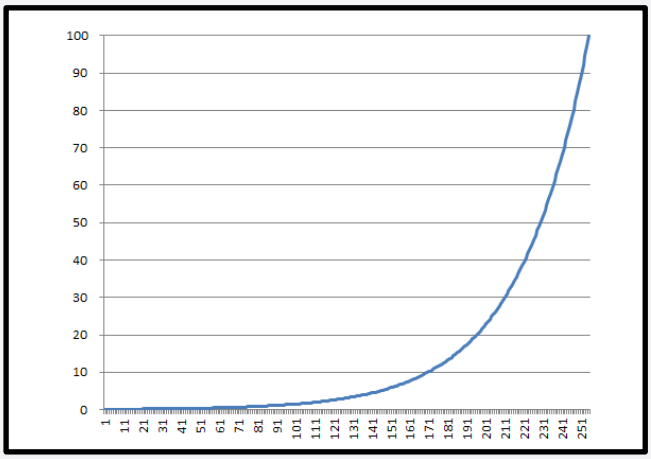
4.Current Setting

1) Control Type : 0-10V , DALI

0-10V



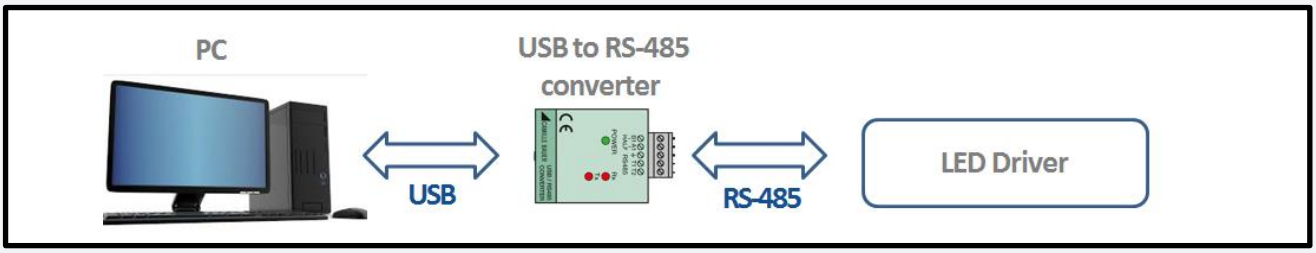
DALI



Article	Symbol	Unit	Min	Typ	Max	Remark
1 to 10 Dimming	Range	Vdc	1		10	
	Cut off	Vdc	0.8	1	1.2	Cut off voltage
DALI Dimming	Range	Digit	85		255	1~100% Refer to DALI spec (EN 62386-101,102,207,209)

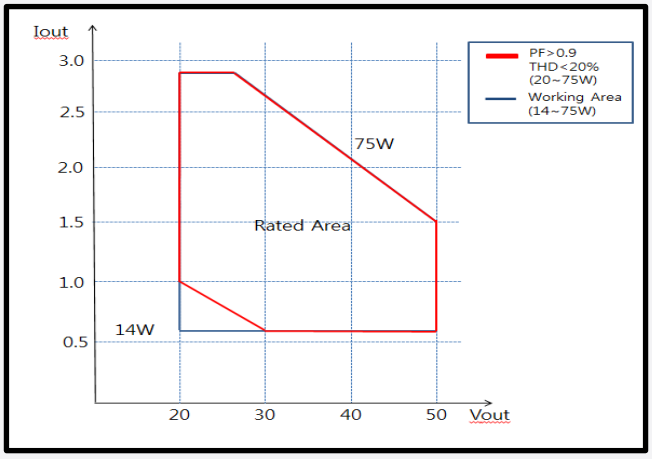
2) Programmable current setting

The programmable driver can be programmed by using the special PC S/W and RS485

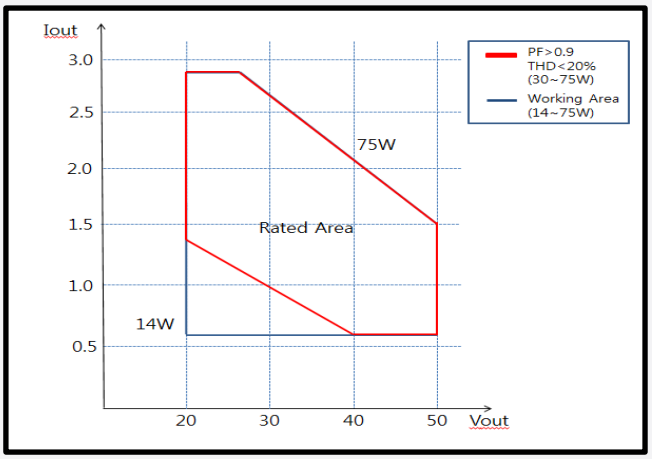


3) Operating Window(V/I Operating Area)

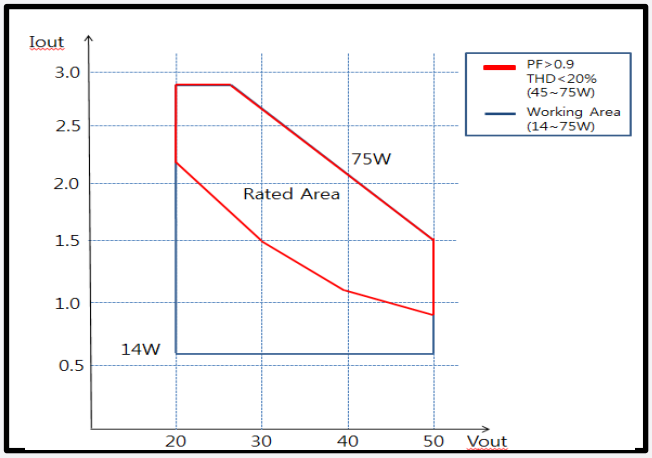
120Vac vs. Load



220Vac vs. Load



277Vac vs. Load



6. Packing Structure

Packing material	Max. quantity (pcs)	Dimension (mm)		
		Length	Width	Height
Outer Box	30	547±5	395±5	135±5

7. Precautions in Handling & Use

1) To prevent the LED Driver from any defect, please handle and store it with care
    - Do not drop or give shock
    - Do not store in very humid location or at extreme temperature
    - Do not open or disassemble the product
2) Static electricity or surge voltage may damage the components inside LED Driver, as such please observe proper anti-electrostatic working process
    - People handing the Driver should be well grounded (e.g. using ESD wrist band) and wear anti-static working clothes and gloves
    - All related devices and instruments in the production line should be well grounded (e.g. working table, measuring equipment, assembly jigs)
3) Observe the correct polarity of output terminal
4) Avoid input voltage exceeds the maximum rating, which will cause damage to the circuit and result in malfunction

Legal and additional information.

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