Programmable Multi-Channel Driver PMD-55A-L

# SLP-DUA45501US



## **Key Features**

- Programmable, adjustable constant output current which can be adjusted to match LED module requirements and selectable various functions : 0-10V Classic, Native White Tuning(Select Mode, Continuous Mode), Dim to Warm.
- 0-10V Classic, two 0-10V inputs allow to control the two output currents of each within the limit of the max. power.
- Native White Tuning, the driver does the current mixing based on one input. That allows the PMD to do white color tuning with only two wall sliders. One 0-10V input sets the mix of warm to cool and another 0-10V input sets the brightness level.
- Dim to Warm, the driver does the current mixing and make CCT to become warmer as the brightness level reduced.

#### **Basic Features**

Series.	Part Number	Max. Power	Function	Input Voltage	Output Voltage	Output Current	Certification
PMD-55A-L	SLP-DUA45501US	55W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL

- Certification : UL8750, UL Class2 Power, 47 CFR Part15 Subpart B
- Protections : Short Circuit, Over Temperature, Open Lamp, Over Voltage
- ta Range : -20 ~ +50 °C
- Expected Lifetime : 50,000 hours at tc = 70 °C



### **PMD Series**

Series.	Part Number	Max. Power	Function	Input Voltage	Output Voltage	Output Current	Certification
PMD-75C-LU	SLP-DUA47531WW	75W	0-10V, DALI	120~277Vac	10~50Vdc	0.35~1.4A	cUL, CE
PMD-75A-L	SLP-DUA47501US	75W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-75D-L	SLP-D2A475D1EU	75W	DALI	220~240Vac	10~50Vdc	0.35~1.4A	CE, ENEC
PMD-75D-LU	SLP-DUA475D1US	75W	DALI	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-55A-L	SLP-DUA45501US	55W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-55D-L	SLP-D2A455D1EU	55W	DALI	220~240Vac	10~50Vdc	0.35~1.4A	CE, ENEC
PMD-55D-LU	SLP-DUA455D1US	55W	DALI	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-55A-S	SLP-DUA4550AUS	55W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-35A-L	SLP-DUA43501US	35W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-35D-L	SLP-D2A435D1EU	35W	DALI	220~240Vac	10~50Vdc	0.35~1.4A	CE, ENEC
PMD-35D-LU	SLP-DUA435D1US	35W	DALI	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-35A-S	SLP-DUA4350AUS	35W	0-10V	120~277Vac	10~50Vdc	0.35~1.4A	cUL
PMD-25A-S	SLP-DUA0250AUS	25W	0-10V	120~277Vac	10~50Vdc	0.35~1.0A	cUL
PMD-25D-SU	SLP-DUA025DAWW	25W	DALI	120~277Vac	10~50Vdc	0.35~1.0A	cUL, CE, ENEC

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## 1. Electrical Specification

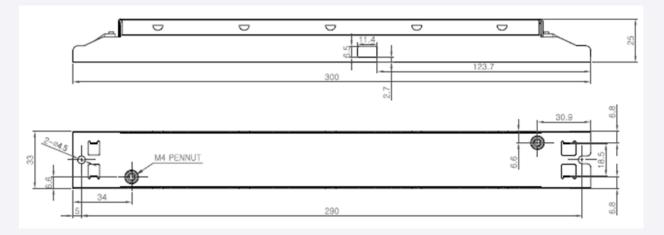
A state	Sumbol		Specification		Unit	Note
Article	Symbol	Min.	Тур.	Max.		
INPUT SPECIFICATIONS						
Nominal Voltage	Vin	120		277	Vac	Full input range
Voltage Range		108		305	Vac	
Nominal Frequency	fin	50		60	Hz	
Frequency Range		47		63	Hz	
Input Current	lin			0.6	A	@ 120Vac
Input Current	lin			0.25	A	@ 277Vac
Total Harmonic Distortion	THD			20	%	@ full load, 120-277 Vac
Power Factor	PF	0.9			-	@ full load, 120-277Vac
Efficiency	Н	83	88		%	@ full load, 120-277 Vac,
Protection Class			I		-	PE can be connected to either terminal or housing
Inrush Current				20	A <sub>pk</sub>	t <sub>width</sub> = Typ. 300 μs @ 50% Ipeak)
OUTPUT SPECIFICATIONS						
Nominal Voltage	Vo	20		50	Vdc	See graph
Nominal Current	lo	0.35		1.4	A	2channel ±5 % tolerance(@ max current)
Current Ripple				30	%	Output current ± 30%
Nominal Power	Ро			55	W	Output wattage
Auxiliary Power Voltage			24		V	For nIO Supply Power
Auxiliary Power Current				100	mA	For nIO Supply power
Turn on delay time	Td			1.0	S	AC on 90%
Dimming SPECIFICATIONS						
Control 1			1 - 10			Analog
Control 1 Range			1 - 100		%	
Dimming Technique			PWM			
				0.5	W	Dimming Off (@120V)
Standby Power				1	W	Dimming Off (@277V)



Article		Specification Symbol			Unit	Note	
		Symbol	Min.	Тур.	Max.	Unit	Note
ENVIRONMENTAL SPEC	IFICATIONS						
Ambient Temperature		ta	-20		50	°C	
Max.Case Temperature		tc			80	°C	Measured at $t_{\rm c}$ point as indicated on the product label
Expected Lifetime			50,000			h	$t_{\rm c}$ = 70 °C , full load
Storage Temperature		ts	-20		85	°C	Cool down before operating
Relative Humidity			20		95	%	Not condensing
Surge Transient	L/N				±2	kV	
Protection	LN / GND				±4	kV	According to EN 61547
IP Rating				20		-	Suitable for indoor environment
Dimensions		L x W x H		300 x 33 x 25		mm	
Net Weight				316		g	± 10%

## 2. Enclosure





## 3. Label

PMD(Programmable Multichann SLP-DUA45501US	Driver)	wire preparation push in 0.2 - 0.75 <sup></sup>	ſ	SN		Block Connection	
S      Vin:120 - 277 V~      Vout:10 - 50V         Iin:0.6A      Iout:0.35 - 1.4A      Iout:0.35 - 1.4A        Freq:50/60Hz      Yaux:24V			N	Made in Korea ☐ Made in China ☐ GROUNDING Driver case must be grounded	Live Neutral P.E	Current Setting	

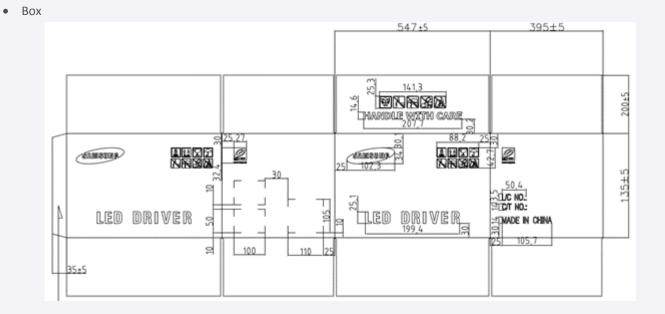




## 5. Packing

Matarial	Quantity	Dimension (mm)				
Material	(Max. pcs)	Length	Width	Height		
Outer Paper Box	30	547±5	395±5	135±5		

- Pallet
- 1100 x 1100 x 1200mm
- 1 Pallet : 32 Box = PSU 960ea (4 Box x 8 Floor)







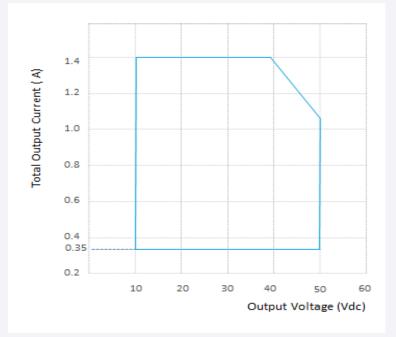
- $\textcircled{1} \mathsf{Model} \mathsf{Code}$
- 2 Lot No.
- ③ Origin
- ④ Packing Quantity
- ⑤ Date of Manufacture (Weekly)
- ⑥ Date of Manufacture (Daily)

### 6. Protection

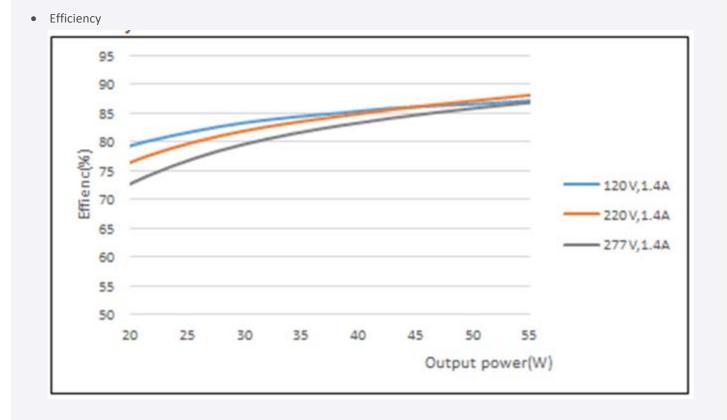
Items	Symbol	Condition	Function
Over Temperature Protection	OTP	Vin = Rated Voltage, Temp. exceeds 150 $^\circ\!\!C$	Current decreases (Auto Recovery)
Short Circuit Protection	SCP	Vin = Rated Voltage, LED short	No Output (Auto Recovery)
Open Lamp Protection	OLP	Vin = Rated Voltage, LED open	Vout = 60V Clamp (Auto Recovery)
Over Voltage Protection	OVP	Vin = Rated Voltage, F/B Open or Short	Vout = 60V Clamp (Auto Recovery)



## 7. Operating Window



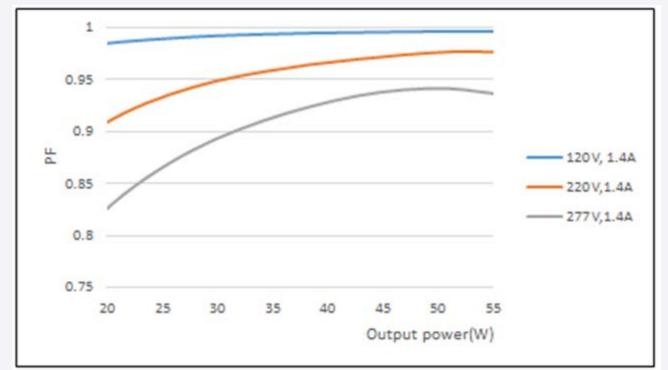
#### 8. Performance



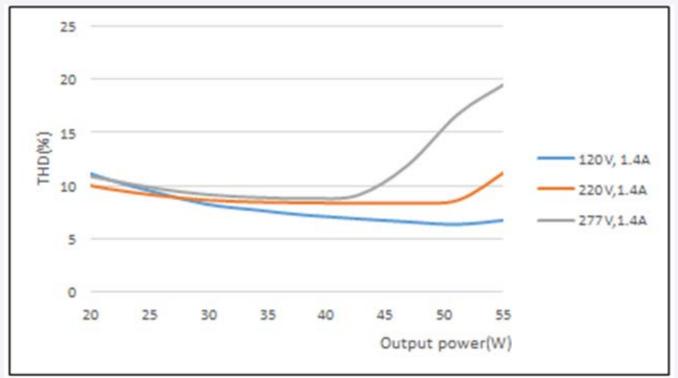
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SAMSUNG

• Power Factor

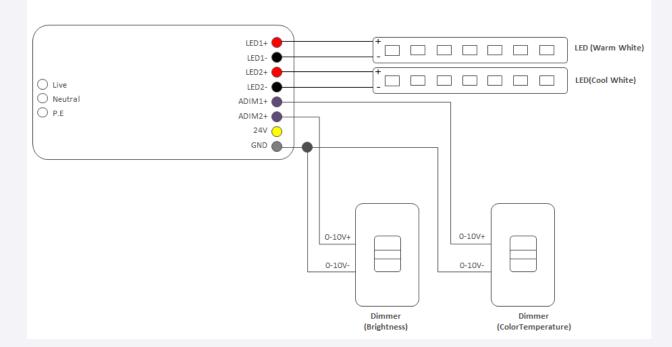


• Total Harmonic Distortion





- To prevent the LED Driver from any defect, please handle and store it with care
  - Do not drop or give shock
  - o Do not store in very humid location or at extreme temperature
  - o Do not open or disassemble the product
- Static electricity or surge voltage may damage the components inside LED Driver, as such please observe proper antielectrostatic 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)
- Incorrect installation of the LED driver can cause irreparable damage to the LED driver and the connected LEDs.
  Pay attention when connecting the LEDs: polarity reversal results in damages the LED driver
  - Observe the correct polarity of output terminal : Please refer to the connection diagram as below



- Avoid input voltage exceeds the maximum rating, which will cause damage to the circuit and result in malfunction
- Specifications are subject to change without notice



# Legal and additional information.

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