Programmable Multi-Channel Driver
PMD-75C-LU

SLP-DUA47531WW

Key Features

- Programmable, adjustable constant output current which can be adjusted to match LED module requirements
- Native White Tuning (0-10V Native), 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
- Device Type 8 (DALI), PMD supports IEC 62386-209 standard command and represents the color temperature of a light Source

Basic Features

Series.	Part Number	Max. Power	Function	Input Voltage	Output Voltage	Output Current	Certification
PMD-75C-LU	SLP-DUA47531WW	75W	0-10V, DALI	120~277Vac	20~50Vdc	0.35~1.4A	cUL, CE

- Certification : EN 62347, EN 55015, EN 61547, UL8750, UL Class2, EN61347, FCC Part15 Class 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	20~50Vdc	0.35~1.4A	cUL, CE
PMD-75A-L	SLP-DUA47501US	75W	0-10V	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-75D-L	SLP-D2A475D1EU	75W	DALI	220~240Vac	20~50Vdc	0.35~1.4A	CE, ENEC
PMD-75D-LU	SLP-DUA475D1US	75W	DALI	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-55A-L	SLP-DUA45501US	55W	0-10V	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-55D-L	SLP-D2A455D1EU	55W	DALI	220~240Vac	20~50Vdc	0.35~1.4A	CE, ENEC
PMD-55D-LU	SLP-DUA455D1US	55W	DALI	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-55A-S	SLP-DUA4550AUS	55W	0-10V	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-35A-L	SLP-DUA43501US	35W	0-10V	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-35D-L	SLP-D2A435D1EU	35W	DALI	220~240Vac	20~50Vdc	0.35~1.4A	CE, ENEC
PMD-35D-LU	SLP-DUA435D1US	35W	DALI	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-35A-S	SLP-DUA4350AUS	35W	0-10V	120~277Vac	20~50Vdc	0.35~1.4A	cUL
PMD-25A-S	SLP-DUA0250AUS	25W	0-10V	120~277Vac	20~50Vdc	0.2~1.0A	cUL
PMD-25D-SU	SLP-DUA025DAWW	25W	DALI	120~277Vac	20~50Vdc	0.2~1.0A	cUL, CE, ENEC

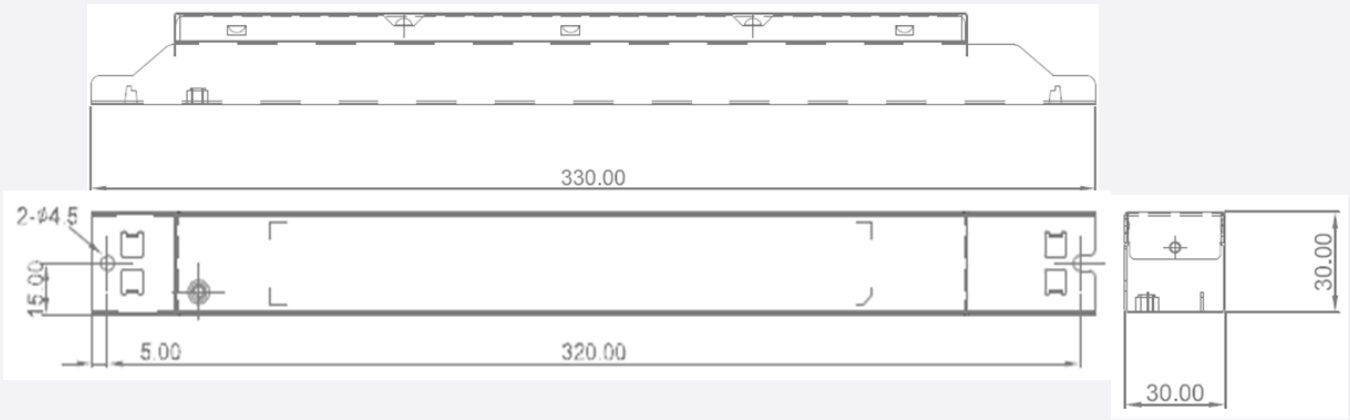
Table of Contents

1. Electrical Specification

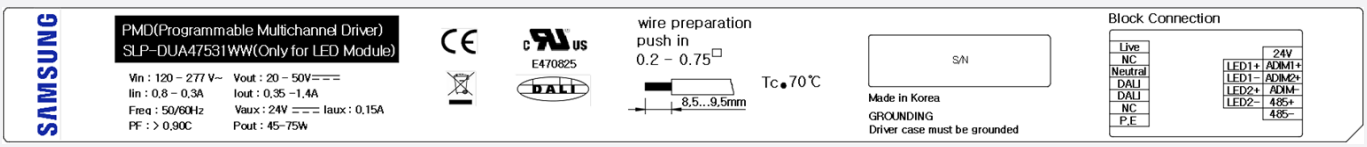
Article	Symbol	Specification			Unit	Note
		Min.	Typ.	Max.		
INPUT SPECIFICATIONS						
Nominal Voltage	Vin	120		277	Vac	Full input range
Voltage Range		108		305	Vac	
Nominal Frequency	fin	50		60	Hz	
Frequency Range		47		63	Hz	
Input Current	Iin			0.95	A	@ 120Vac
Input Current	Iin			0.2	A	@ 277Vac
Total Harmonic Distortion	THD			20	%	@ full load, 120-277 Vac
Power Factor	PF	0.9			-	@ full load, 120-277Vac
Efficiency	H	83	88		%	@ full load, 120-277 Vac,
Protection Class			I		-	PE can be connected to either terminal or housing
Inrush Current				20	A_{pk}	t_{width} = Typ. 300 µs @ 50% Ipeak)
OUTPUT SPECIFICATIONS						
Nominal Voltage	Vo	20		50	Vdc	See graph
Nominal Current	Io	0.35		1.4	A	2channel (±5 % tolerance)
Current Ripple				30	%	Output current ± 30%
Nominal Power	Po			75	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			DALI			Digital
Control 1 Range			1-100		%	
Control 2			1 - 10			Analog
Control 2 Range			1 - 100		%	
Dimming Technique			PWM			
Galvanic Isolation			Basic / Double			Basic: DALI to primary-earth Double: DALI to secondary

Article		Symbol	Specification			Unit	Note
			Min.	Typ.	Max.		
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%

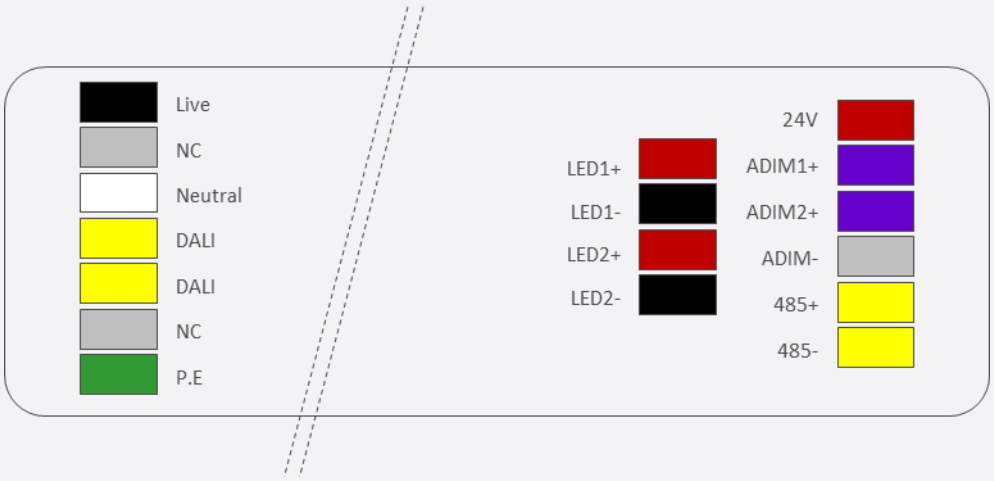
2. Enclosure



3. Label



4. Connector



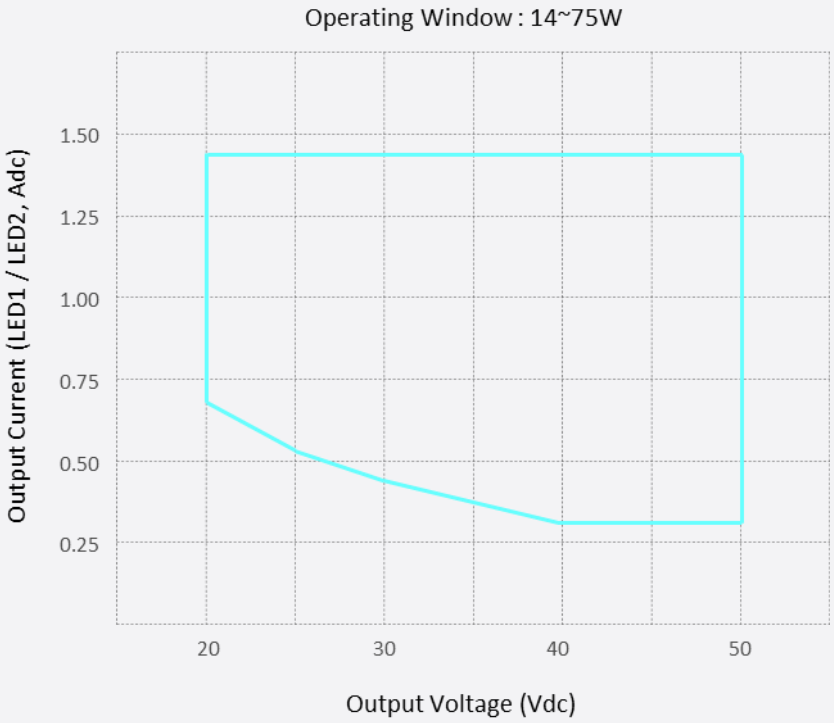
5. Packing

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

6. Protection

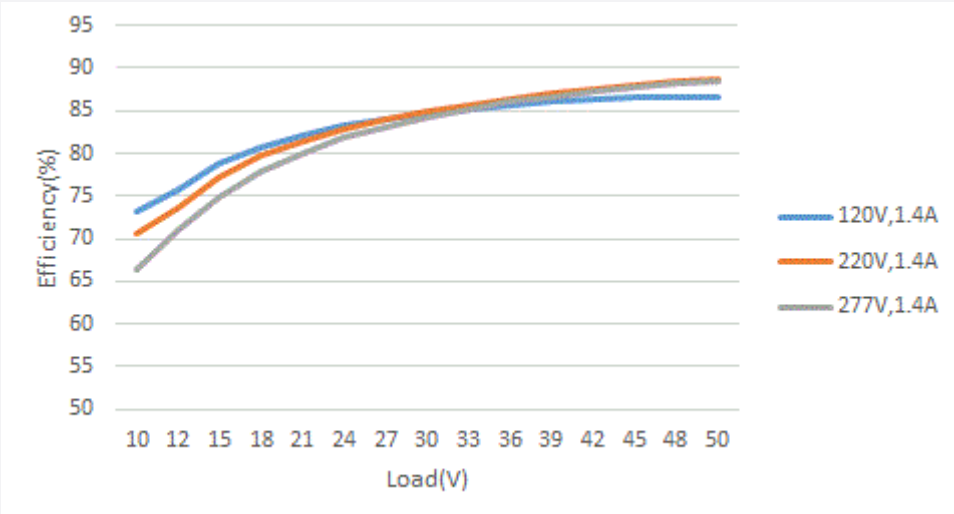
Items	Symbol	Condition	Function
Over Temperature Protection	OTP	Vin = Rated Voltage, Temp. exceeds 150℃	Current decreases (Auto Recovery)
Short Circuit Protection	SCP	Vin = Rated Voltage, LED short	No Output (Latch)
Open Lamp Protection	OLP	Vin = Rated Voltage, LED open	Vout = 60V Clamp (Auto Recovery)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

7. Operating Window

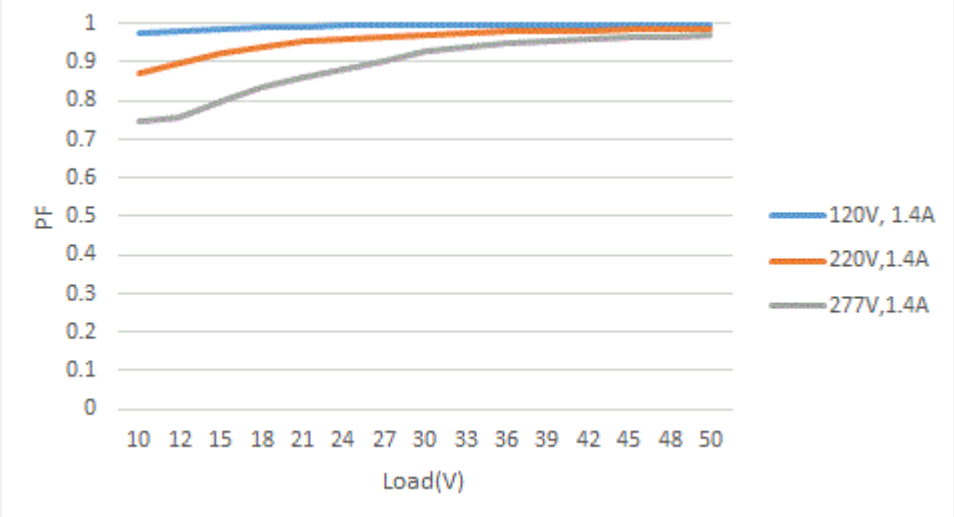


8. Performance

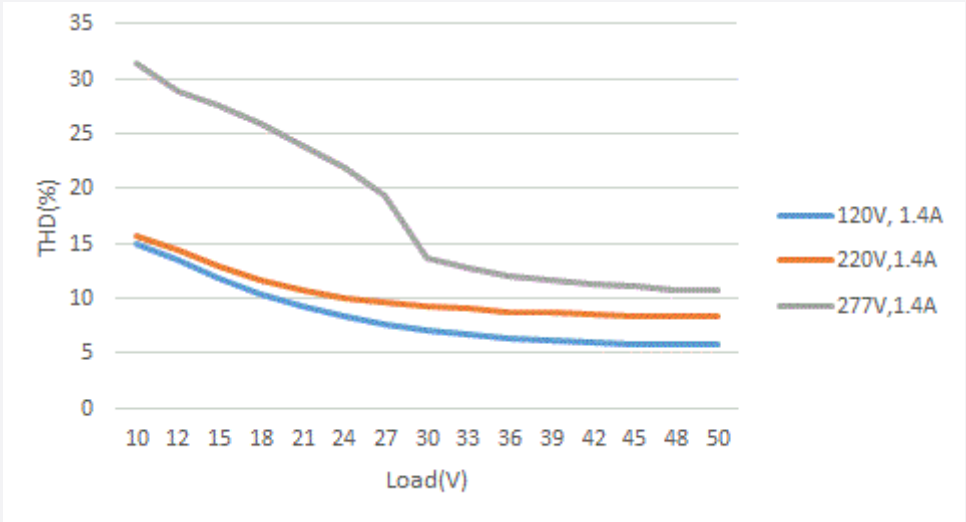
- Efficiency



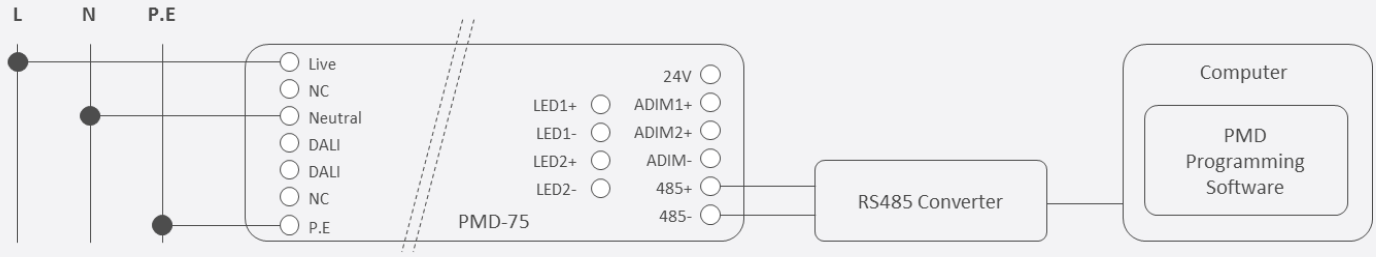
- Power Factor



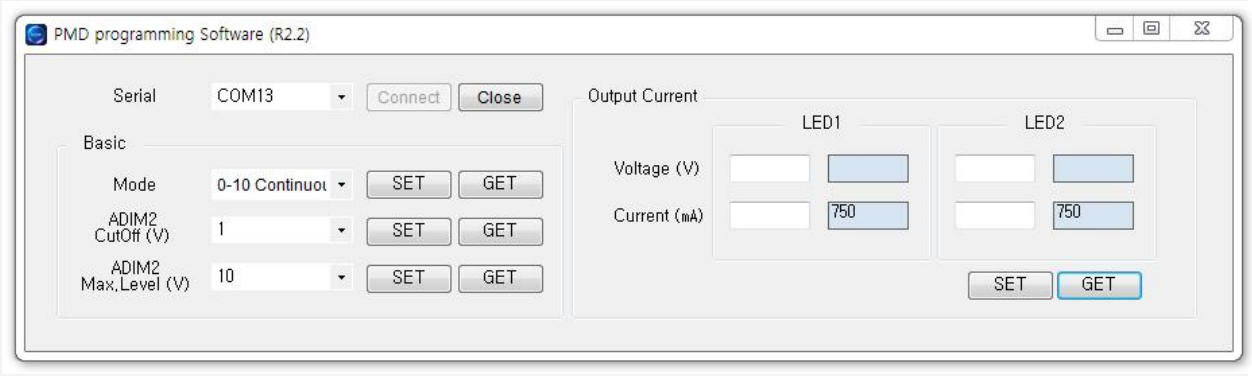
- Total Harmonic Distortion



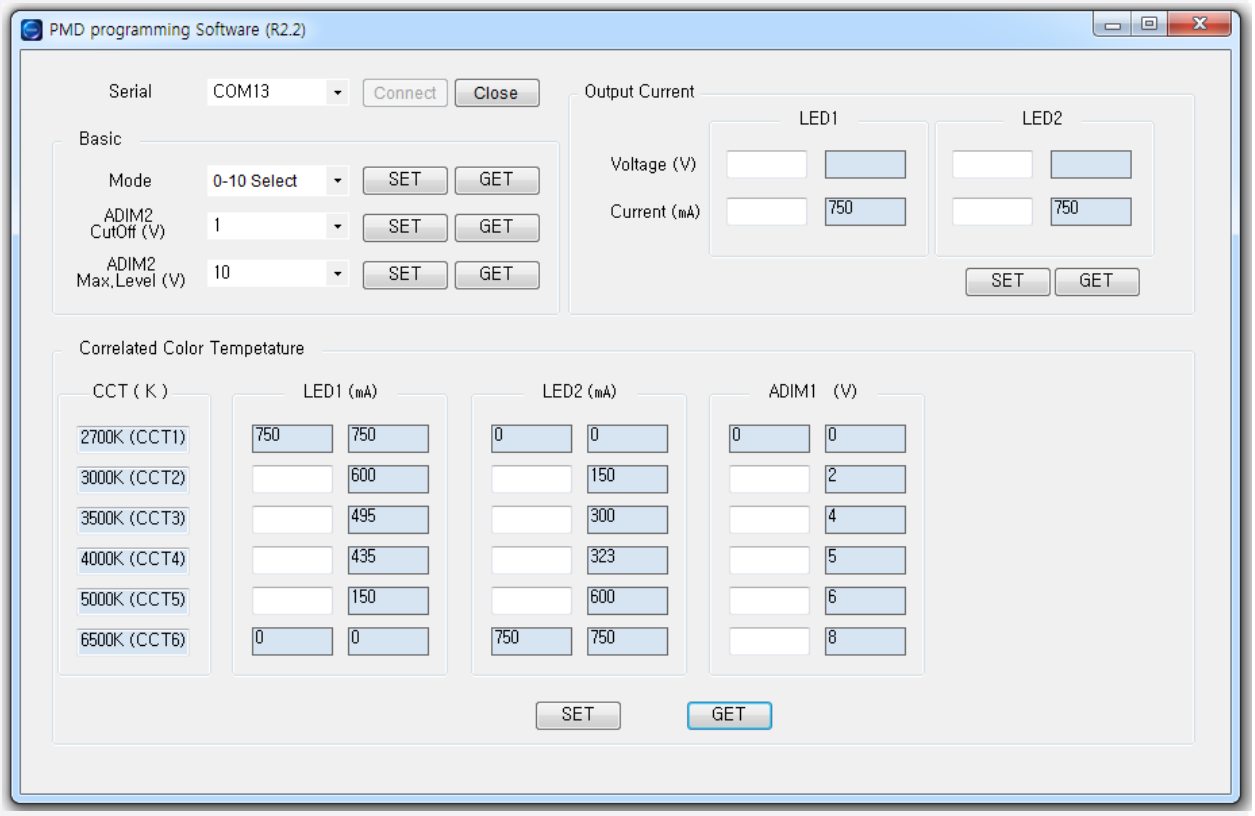
9. Programming



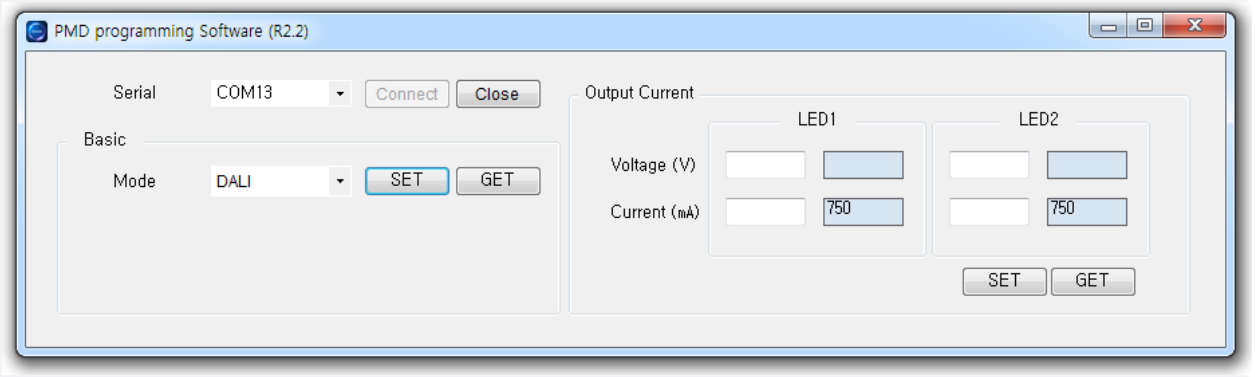
- Connecting a RS485 converter between PMD and Computer
- Install ‘PMD Programming Software’
- Supply AC source to PMD and Run the software
- Select an available COM port
- Read default values using ‘GET’ buttons for each modes
    - 0-10 Continuous (Default Mode)



    - 0-10V Select



- DALI



- Basic
  - Set modes : 0-10 Continuous, 0-10 Select, DALI
  - Set the ‘CutOff’ voltage of ADIM2 in the ‘0-10 Continuous’, ‘0-10 Select’
  - Set the ‘Max. Level’ voltage of ADIM2 in the ‘0-10 Continuous’, ‘0-10 Select’

    Note: From the lower voltage of ‘CutOff’, the output current is turned off. For example, if ‘CutOff’ voltage is 1V, output current is turned off from <1V.

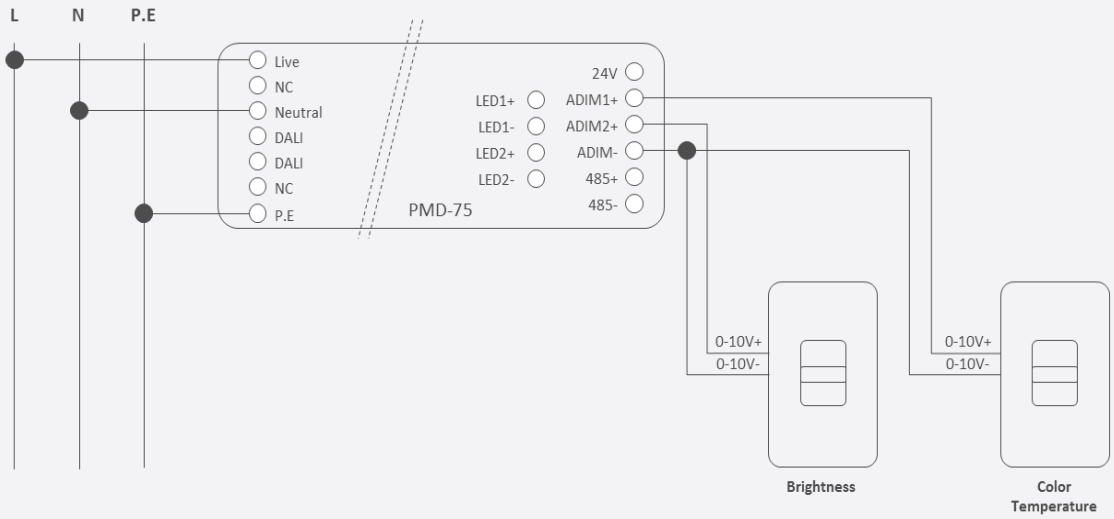
- Output Current
  - Set target ‘Voltage’
  - Set target ‘Current’ of LED1, LED2

- Correlated Color Temperature
    - Set the required currents for each CCT in ‘0-10 Select’
    - Set ADIM1 voltage in ‘0-10 Select’

      Note: Values in ADIM1 (V) are minimum voltages for CCTs and the CCTs have maximum voltages that are lower than the voltage of next CCT. For example, if CCT1 : 0V and CCT 2 : 2V, the voltage range for CCT 1 is from 0V to <2V. The maximum voltage of CCT 6 is fixed as 10V.

10. Application

- Connection with 0-10V dimmers for Native White Tuning



11. Precaution

- 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
- 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)
- Observe the correct polarity of output terminal
- 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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