Antron Electronics Co.,LTD
安雄電子股份有限公司

NFC 120-277V Series 25/30/40/50W

Features

- Constant Current mode
- Universal input voltage 120-277V
- Protections: Open / Short / Over-Voltage / Over-Temperature
- PFC, flicker-free and isolated design
- Suitable for UL dry and damp location
- Programming output current with Wand / IOS APP
- 2Kv to 6Kv surge protection
- 3 in 1 Dimming (PWM, 1-10V, Resistance), Dim to 10%, 1%, or Off
- 5 years warranty
- Isolated Dimming



ClassP Class2

Input/Output Specifications

Mode	Parameter	☐PAC1250S25DIL	☐PAC1250S30DIL	☐PAC1400S40DIL	☐PAC1400S50DIL
INPUT	Voltage range	120 ~ 277 VAC ± 10%, 170 ~ 392 VDC			
	Frequency	50/60 Hz			
	Efficiency	81%	81%	82%	85%
	AC current	0.27A@120V 0.11A@277V	0.3A@120V 0.13A@277V	0.4A@120V 0.18A@277V	0.5A@120V 0.21A@277V
OUTPUT	DC Voltage	15-55V	15-55V	15-55V	15-55V
	Current range	0.35 ~ 1.25A	0.35 ~ 1.25A	0.40 ~ 1.40A	0.40 ~ 1.40A
	Rated power	25W	30W	40W	50W
	RIPPLE & NOISE	200mVp-p			
☐Optional	Auxiliary Wire	12V / 100mA			
Dimension (L x W x H) (mm)		☐ Case A (AM49) - 158 * 44 * 31 ☐ Case B (AM111) - 133 * 63 * 30 ☐ Case C (AM159) - 314 * 34 * 27.5			

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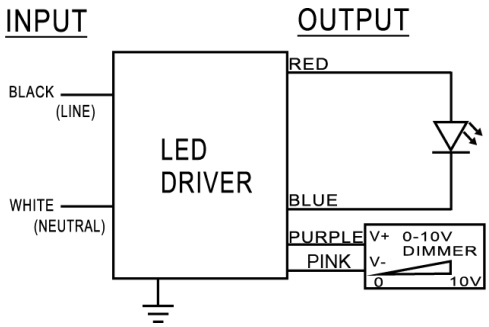
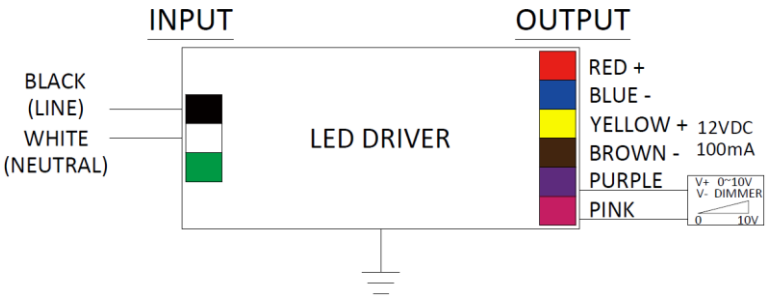
Wire Diagram



Standard Version



With Auxiliary Wire

Maximum wiring distance (at full load) is 5.5meters. LED case should be grounded.

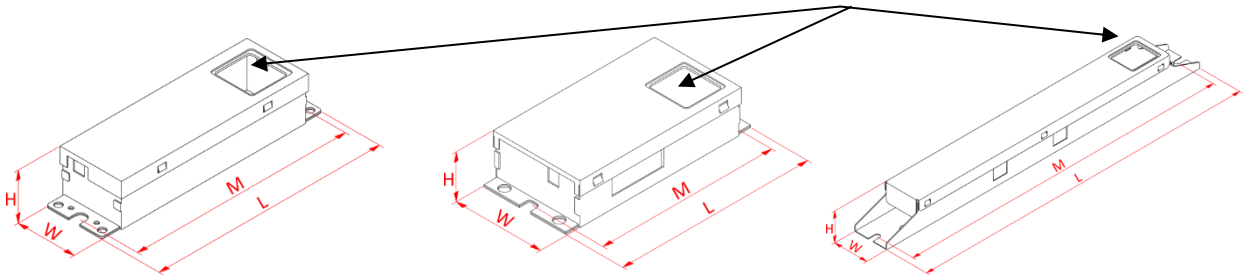
Standard Lead Wire Length

Wire Color	Inch	Cm
Black	6	15.2
White	6	15.2
Red	6	15.2
Blue	6	15.2
Purple	7.1	18
Pink	7.1	18
Brown (Optional)	6	15.2
Yellow(Optional)	6	15.2

** Connector Version not applied*

Enclosure

Sensor Area



Case A (AM49) Case B (AM111) Case C (AM159)

Enclosure	Inch	Cm	Inch	Cm	Inch	Cm
Length(L)	6.22	15.8	5.23	13.3	12.3	31.4
Width(W)	1.73	4.4	2.48	6.3	1.33	3.4
Height(H)	1.22	3.1	1.18	3	1.08	2.75
Mounting(M)	5.86	14.9	4.84	12.3	11.8	30.1

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General Specifications

Parameter	Min.	Typ.	Max.	Notes
MTBF	-	100,000 Hours	-	@25℃ ambient temperature
Lifespan Time	75,000 Hours	-	-	In the range of specification required by normal use of the power supply at ambient temperature 55℃
Cold Start	-	-	1.0s	@-40℃

Protection

Parameter	Description
Over Voltage	Output current decade mode, recovers automatically after fault condition is removed.
Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.
Over Temperature (Optional)*	Brightness dims to 25% when T-case > 80°C for overheat protection, and auto-recovers to 100% when T-case drops below 80°C

* The factory default setting does not include over temperature protection.

Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operation Temperature	-40℃	-	50℃	
Storage Temperature	-40℃	-	80℃	
Humidity	10%	-	90%	
T-Case Temperature	-	-	90℃	

Safety and EMC Compliance

Safety Standards	Withstand Voltage	Isolation Resistance	EMC Standards	
			EMI	EMS
UL 8750	I/P-O/P: 2.0K Vac I/P-FG: 2.0K Vac O/P-FG: 0.5K Vac	I/P-O/P: I/P-FG: O/P-FG: 100Mohm/500VDC	FCC Part 15 class A UL8750 CSA C22.2 No. 250.13-14	FCC Part 15 class A UL 8750

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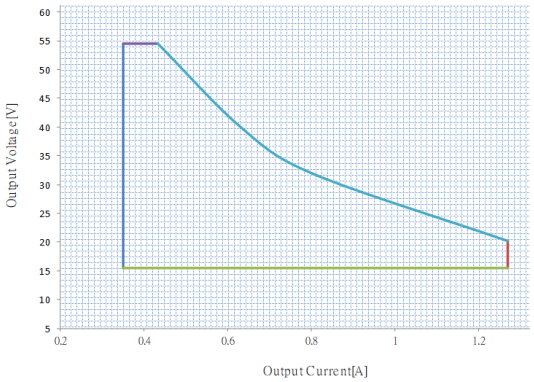
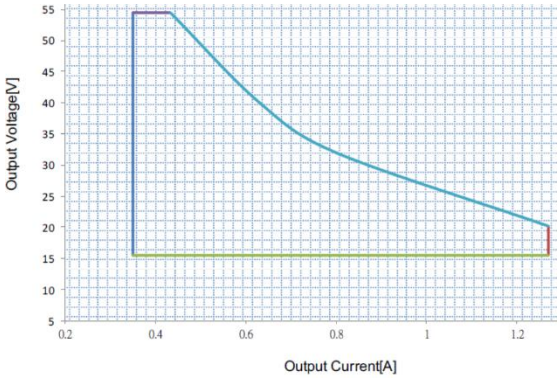
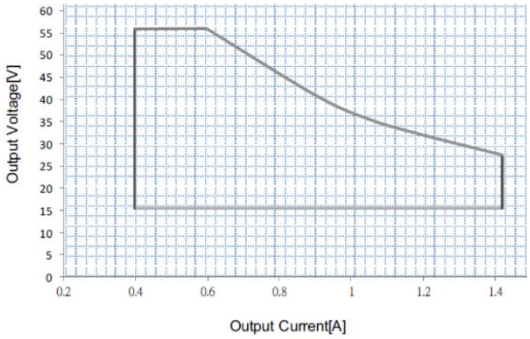
I_{out} vs V_{out} Curve



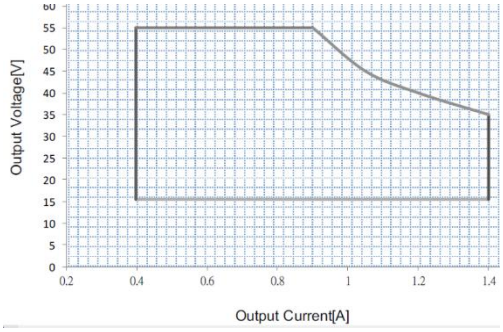
PAC1250S25D



PAC1250S30D



PAC1400S40D



PAC1400S50D

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Programmable Tool

- Put the programmable wand above the NFC mark of the driver to start programming
- Download the software from www.antron.com.tw

Programmable Driver Options (App Note)

All programmable drivers accept a 16-bit hexadecimal code to program the output current (Iout) of the driver. The Iout programming codes are documented in the computer based-programming software (ST-TOOLS.exe) or from the driver's IOUTCODE.pdf file. The Locations below 0, 1, 2, 3 contain the basic code for a specific output current value (example 84 03 00 01 = 1050 mA for PAC1400S50D).

Location	0	1	2	3
Value	00	00	00	00

For drivers containing Revision C of their firmware (contact factory for date code of implementation), it is also possible to adjust the minimum dimming level and the dimming speed. This adjustment is made by modifying location 2 of the programming code while keeping the other locations set for the desired output current. Specifically, the location 2 values are defined as:

- 00 => Dim to 1%, Speed ≤ 1.0 sec
- 01 => Dim-to-OFF, Speed ≤ 1.0 sec
- 02 => Dim to 10%, Speed ≤ 1.0 sec
- 03 => Dim to 1%, Speed ≥ 2.5 sec
- 04 => Dim-to-OFF, Speed ≥ 2.5 sec
- 05 => Dim to 10%, Speed ≥ 2.5 sec

As an example, if the programming code value of 84 03 00 01 is programmed, the output current will be 1050 mA, and the driver will dim to 1% and the dimming speed will be ≤ 1.0 sec. If the programming code of 84 03 04 01 is programmed, the output current will be 1050 mA, and the driver will dim to off and the dimming speed will be ≥ 2.5 sec.

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Revision History

Change date	Description of Change		
	Item	From	To
2025/02/05	1. Model name 2. Over Temperature	1. NFC 120-277V Series 25~50W 2. /	1. NFC 120-277V Series 25/30/40/50W 2. Updated
2025/02/07	1. Enclosure	1. /	1. Update format

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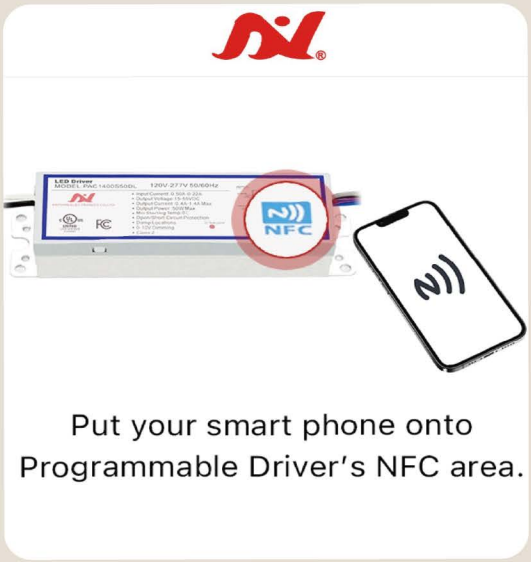
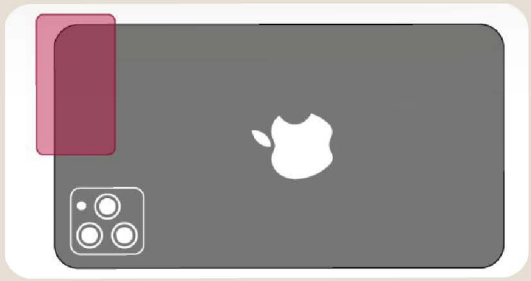
HOW TO USE NFC PROGRAMMING

1. Downloading the App

(1.) Open the App Store on your Apple device.
(2.) Search for Antron LED Driver App.
(3.) Tap Download and wait for the app to install.





2. App Setup and Operation

(1.) Launch the App
Open the app by tapping the Antron LED Driver icon on your home screen.

(2.) Ensure NFC is Enabled
Verify that the NFC functionality on your device is turned on.

(3.) Scan the Driver
Place your device' s NFC area near the tag' s NFC logo to start scanning.

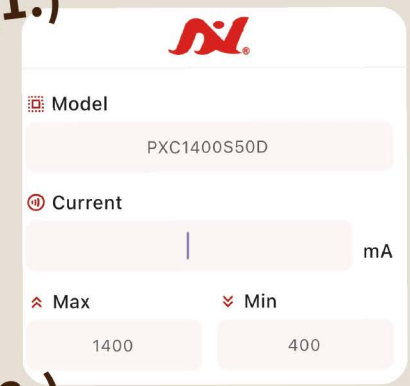
(4.) Automatic Detection
Once detected, the app will navigatedirectly to the corresponding operationinterface.

3. Configuring Driver Settings

(1.) Current Settings
In the Current field, input the desired current value.
The maximum and minimum current limits will be displayed below for reference.

(2.) Dimming Speed
Select either Fast or Slow based on your preference.

(1.)



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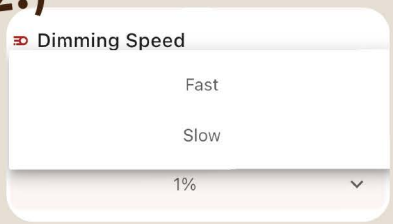

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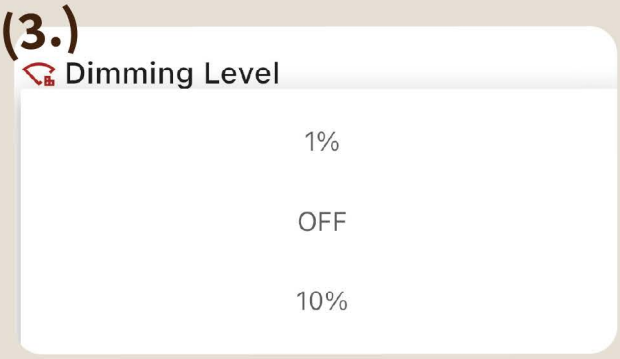

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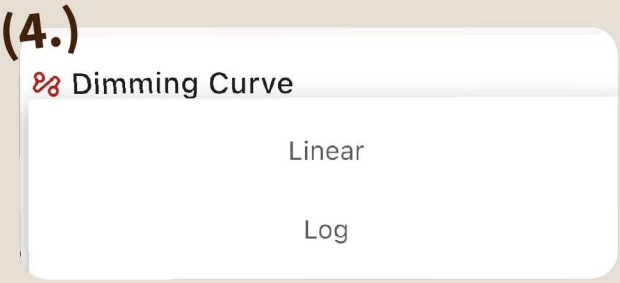

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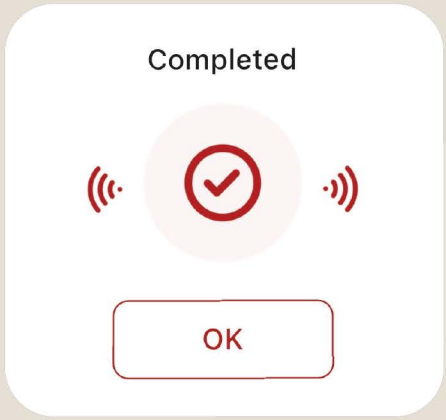

(3.) Dimming Level

Adjust the minimum output power via the dimmer to 1%, 10%,or off, according to your requirements.

(4.) Dimming Curve

Choose between Linear or Log dimming for your application.

(5.) Apply Settings

Once all the desired settings are selected, tap Write and bring your device’ s NFC area close to the LED Driver’ s NFC logo to initiate programming.

When the screen displays Completed, the scanning and configuration are finished.

4. Troubleshooting

(1.) Unable to Detect the Driver

Ensure NFC is enabled on your Apple device.
Check that the NFC tag is clean and free of obstructions.

(2.) Settings Not Applying

Confirm that the device is properly scanned.
Confirm that the input current value is within the product’ s maximum and minimum limits.
Retry applying settings and ensure you tap Write.

(3.) App Crashing or Freezing

Restart the app or your device.
Ensure you’ re using the latest app version.

(4.) Contact Support

For further assistance, contact our support team:
Email: info@antron.com.tw