

FPD PROGRAMMING TOOL

LED Drivers / LED Control Gear

Output current programmable

VEGA Series



User Manual V2.0.0

TCI **LED**
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I. Software Requirements

1. FPD PROGRAMMING TOOL

To download “www.tci.it/TCI_tools/FPD_PROGRAMMING_TOOL_127098.zip” and extract the zip file into a directory of your choice. The “setup.exe” is FPD PROGRAMMING TOOL, installer you can just double click it to launch the installer.



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2. FTDI Driver

Install the FTDI driver for Windows. Clicking Extract & Click Next



Installation complete and click "Finish" to continue.



II. Connect the device

Step 1. Use a USB cable to connect the FPD PROGRAMMING TOOL to one of your PC's USB host ports.



Step 2. There are “Blue” & “BLACK” two wires coming out from FPD PROGRAMMING TOOL.
The blue wire connects to LED power driver output, “LED” “-“
The black wire connects to LED power driver output, “LED” “PRG/NTC”.



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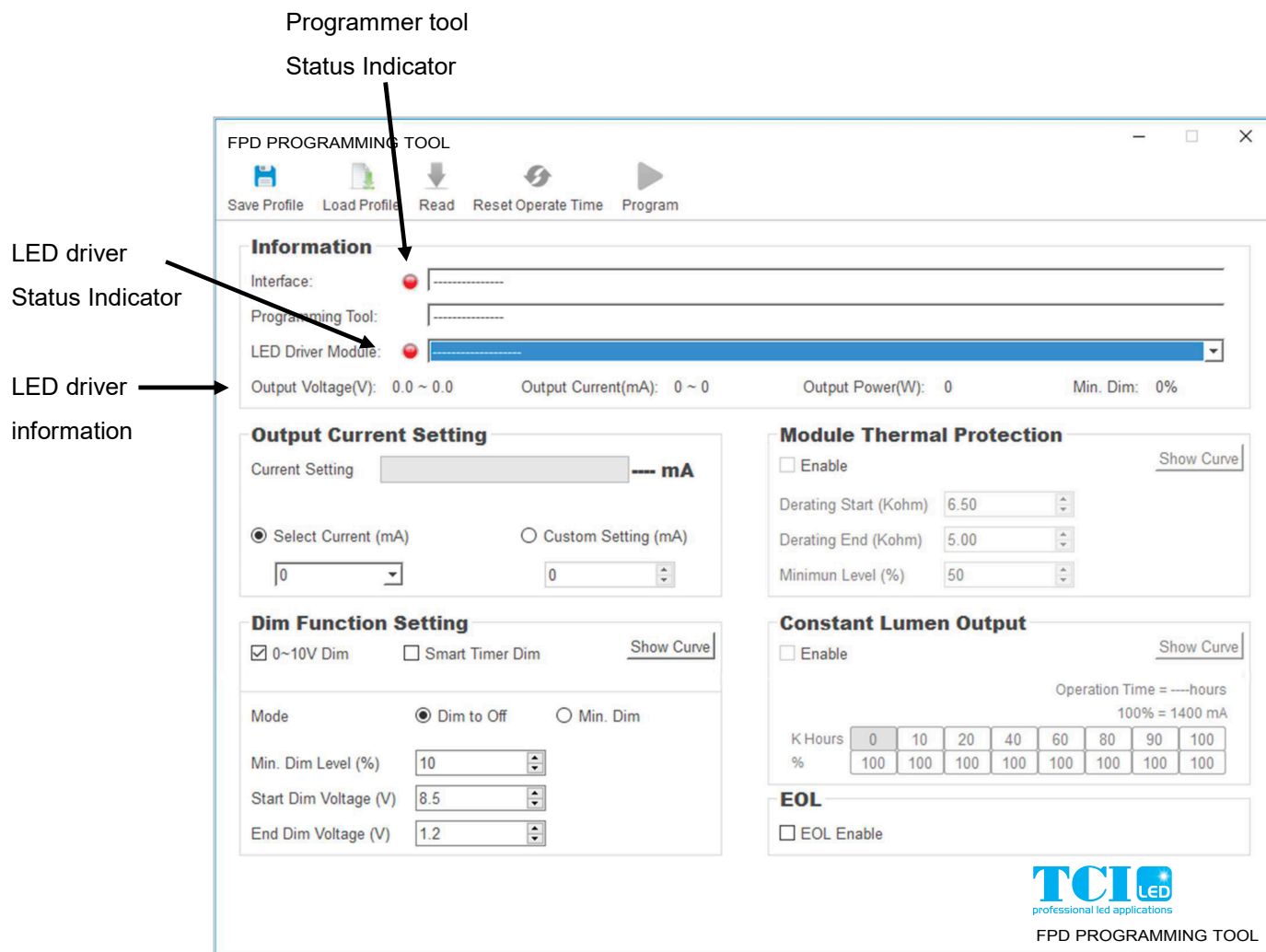
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III. Programming functions and interface

Function 1:

Output current change




There are two status indicators:


Programmer Tool Status Indicator – Indicates the connection status of programmer tool. **LED Driver Status Indicator** – Indicates the connection status of LED power supply.


STATUS INDICATOR	COLOR	DESCRIPTION
Programmer Tool	Red/Yellow Blinking	FPD PROGRAMMING TOOL not detected. Programming GUI is searching for an FPD PROGRAMMING TOOL.
	Green Solid	FPD PROGRAMMING TOOL detected. The "Interface" field shows "COM XX" for programming tool or "OBID USB Device" for NFC programming tool.
LED Driver	Red/Yellow Blinking	LED power supply not detected.
	Green Solid	LED power supply is connected. The "LED Driver Module" field shows the Model name. Programming GUI will automatically reads all the settings in the LED driver.

The status indicators must be displayed in GREEN before starting to program.

Information

Interface: 


Programming Tool: 

LED Driver Module:  VEGA 100/600-1400 FPD IP67

Output Voltage(V): 47.0 ~ 143.0 Output Current(mA): 600 ~ 1400 Output Power(W): 100 Min. Dim: 10%

For speedy setup, to select the desired output current from the drop-down list. (50mA for each step).

Output Current Setting

Current Setting  **1000 mA**

☒ Select Current (mA) ☐ Custom Setting (mA)

1000 950 1000 1050 1100 1150 1200 1250 1300 1350 1400

Dim ☒ Smart Timer Dim [Show Curve](#)

☒ Dim to Off ☐ Min. Dim

If default output current is not desired, you may use “Custom Setting” to change output current. Enter the desired output current value. (1mA for each step)

Output Current Setting

Current Setting 1000 mA

☐ Select Current (mA) ☒ Custom Setting (mA)

1000 1005

Select the “Custom Setting”

Function 2:

Set the Dim Function to “0~10V” or “Smart Time Dim”.

a) 0~10V Dim function

Set the min. dimming mode to “Dim to off” or “Min. Dim”.

Check the box for “Dim to off” or “Min. dim” selection, this is subject to customer application and dimmer capability.

Dim Function Setting

☒ 0~10V Dim ☐ Smart Timer Dim [Show Curve](#)

Mode ☒ Dim to Off ☐ Min. Dim

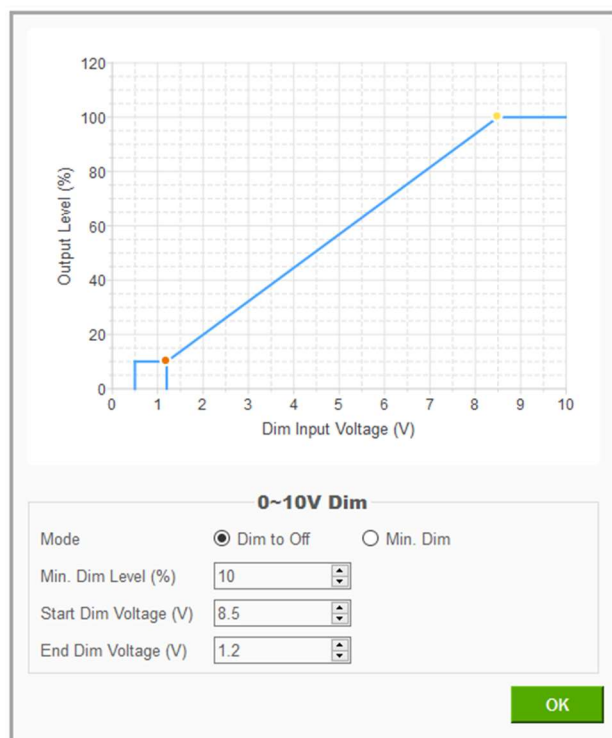
Min. Dim Level (%) 10

Start Dim Voltage (V) 8.5

End Dim Voltage (V) 1.2

Show Curve

The output level curve can be viewed using the “Show curve” button.



b) Smart Time Dim function

Dim Function Setting

☐ 0~10V Dim ☒ Smart Timer Dim [Show Curve](#)

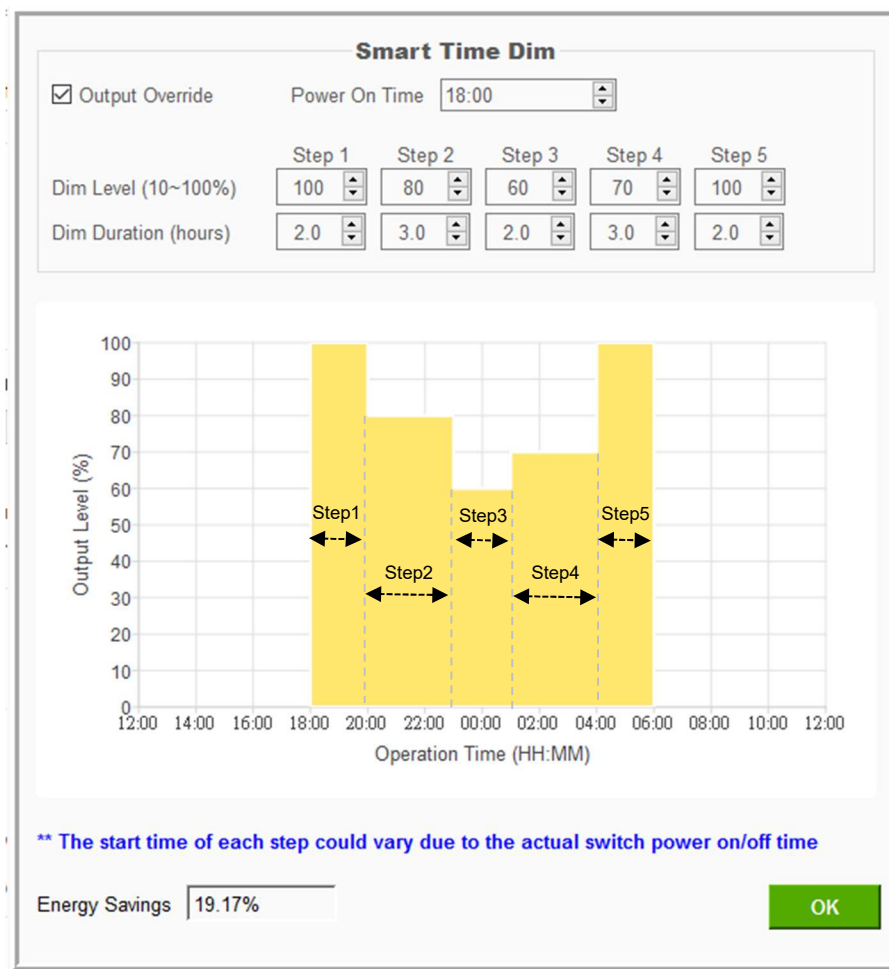
Mode: ☒ Dim to Off ☐ Min. Dim

Min. Dim Level (%): 10

Start Dim Voltage (V): 8.5

End Dim Voltage (V): 1.2

Check for setting



A new window pops up where different parameters can be set for the smart time dim.

The 'Power on time' determines the time from which the driver starts power on.

The 'Dim Dime Level' can be set in 5 different levels during the on time.

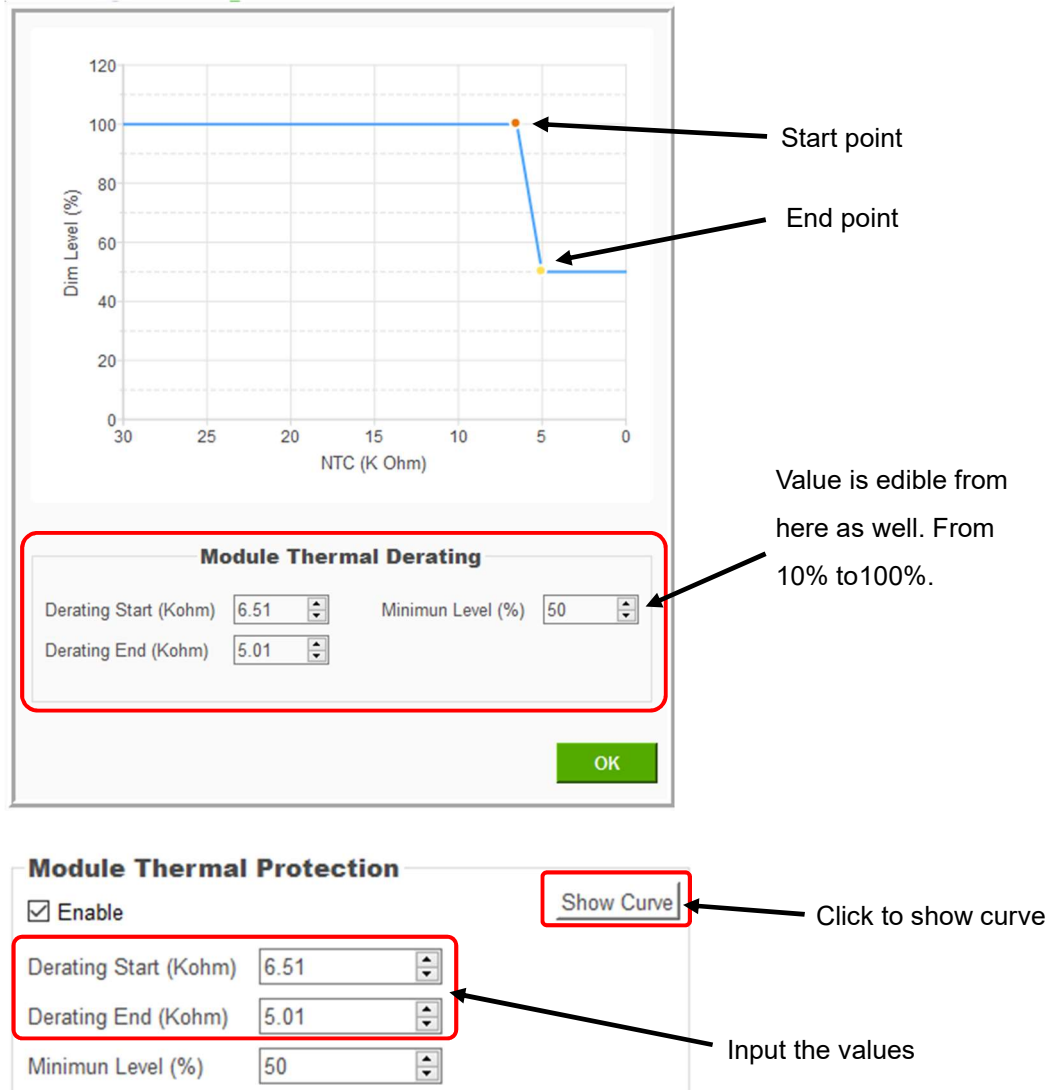
and set the 'Dim Duration' for each Dim level (HH:MM).The max duration of any Dim level is 4 hours.

When set the 'Output Override' for Human/Photo sensor, short the LED driver Dim+ & Dim- pin, the output Dim level will be rise to 100% (Maximum level).

Function 3:

LED Module Thermal Protection

It is disabled by default. NTC has to be connected or built in to LED module when this function is active. The max. value for “De-rating Start” is 30kΩ and De-rating End’ is always less than “De-rating Start’ value and greater than or equal to zero. Set the Minimum Level between 10-100%.



Function 4:

Constant Lumen Output by compensation

Constant Lumen Output

☒ Enable Show Curve

Operation Time = 0 hours

100% = 1400 mA

K Hours	0	10	20	30	40	50	60	100
%	90	100	100	100	100	100	100	90

LED Module operation period

This function is disabled by default. There are 8 segments to input on the GUI for operation time for K hours and output current percentage.

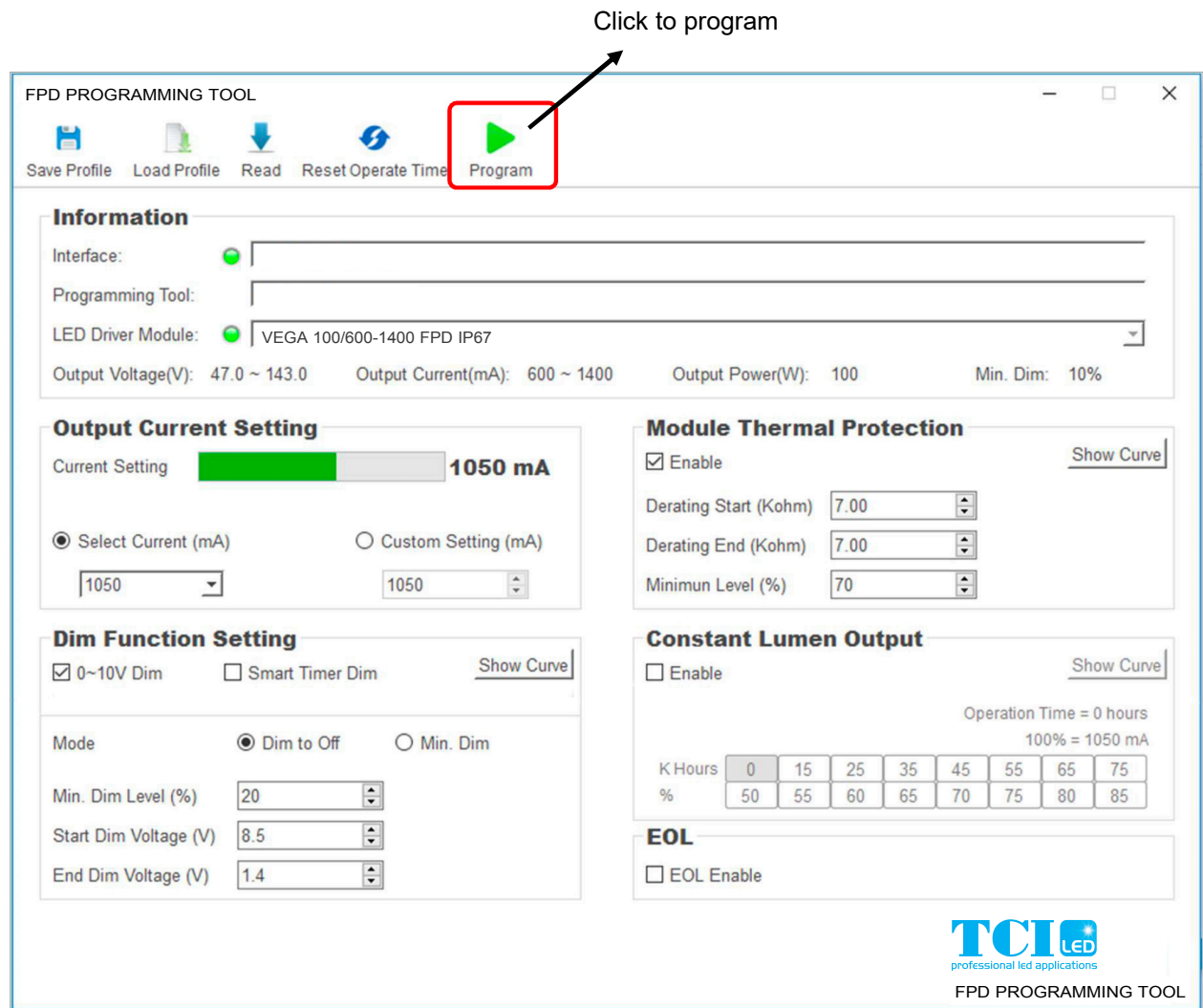
For K Hours: The first cell is '0' (zero) by default; maximum is 50(K Hours) and minimum is 1 K Hours.

For output current percentage: Maximum is 150% and minimum is 50%.

However, if the set output power is over the designed device power, system will pop up an alarm that output current is over and to decrease the output current.

When aforementioned initial setup and functions are decided, start to bring over LED driver to change the output current.

Click the “Program” button to start programming, and all the settings will be programmed into the LED driver.



When the programming has started, the programming view pops up and the message "Start Programming LED Driver" is displayed.

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Save Profile Load Profile Read Reset Operate Time Program

Information

Interface:

Programming Tool:

LED Driver Module:

Output Voltage(V): 28.5 ~ 57.0 Output Current(mA): 300 ~ 1400 Output Power(W): 40 Min. Dim: 10%

Output Current Setting **Module Thermal Protection**

Current Setting ☐

☒ Select Current (mA)

Start Programming LED Driver

Prog. Success : -----

Prog. Failure : -----

Done

Show Curve

Dim Function Setting

☒ 0~10V Dim ☐ Smart Timer Dim Show Curve

Mode ☒ Dim to Off ☐ Min. Dim

Min. Dim Level (%)

Start Dim Voltage (V)

End Dim Voltage (V)

Constant Lumen Output

☒ Enable Show Curve

Operation Time = 0 hours

100% = 1400 mA

K Hours	0	10	20	30	40	50	60	100
%	90	100	100	100	100	100	100	90

EOL

☐ EOL Enable

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When the programming is completed, the message “Programmed successfully....!” or “Programmed Failed....!” will be displayed on the programming view, and automatically count the number of “Prog. Success” or “Prog. Failure”.

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Save Profile Load Profile Read Reset Operate Time Program

Information

Interface: ☒ ☐

Programming Tool:

LED Driver Module: ☒ VEGA 100/600-1400 FPD IP67

Output Voltage(V): 47.0 ~ 143.0 Output Current(mA): 600 ~ 1400 Output Power(W): 100 Min. Dim: 10%

Output Current Setting **Module Thermal Protection**

Current Setting ☒

Programmed Successfully!

** Connect the next LED driver **

Prog. Success : 1 pcs
Prog. Failure : -----

Done

Dim Function Setting **Constant Lumen Output**

☒ 0~10V Dim ☐ Smart Timer Dim [Show Curve](#)

Mode ☒ Dim to Off ☐ Min. Dim

Min. Dim Level (%) 20

Start Dim Voltage (V) 8.5

End Dim Voltage (V) 1.4

☐ Enable [Show Curve](#)

Operation Time = 0 hours
100% = 1400 mA

K Hours	0	15	25	35	45	55	65	75
%	50	55	60	65	70	75	80	85

EOL

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Save Profile Load Profile Read Reset Operate Time Program

Information

Interface: ☒ ☐

Programming Tool:

LED Driver Module: ☒ VEGA 100/600-1400 FPD IP67

Output Voltage(V): 28.5 ~ 57.0 Output Current(mA): 300 ~ 1400 Output Power(W): 40 Min. Dim: 10%

Output Current Setting **Module Thermal Protection**

Current Setting ☒

Programmed Failed!

** Connect the next LED driver **

Prog. Success : -----
Prog. Failure : 1 pcs

Done

Dim Function Setting **Constant Lumen Output**

☒ 0~10V Dim ☐ Smart Timer Dim [Show Curve](#)

Mode ☒ Dim to Off ☐ Min. Dim

Min. Dim Level (%) 10

Start Dim Voltage (V) 8.5

End Dim Voltage (V) 1.2

☒ Enable [Show Curve](#)

Operation Time = 0 hours
100% = 1400 mA

K Hours	0	10	20	30	40	50	60	100
%	90	100	100	100	100	100	100	90

EOL

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If the LED driver is not connected, the programming view will display the message "Wait for LED Driver....!". At this time, you can connect the next LED driver to continue programming, or click the "Done" button to close the programming view.

FPD PROGRAMMING TOOL

Save Profile Load Profile Read Reset Operate Time Program

Information

Interface: ● _____
 Programming Tool: _____
 LED Driver Module: ● VEGA 100/600-1400 FPD IP67
 Output Voltage(V): 28.5 ~ 57.0 Output Current(mA): 300 ~ 1400 Output Power(W): 40 Min. Dim: 10%

Output Current Setting
 Current Setting
☒ Select Current (mA)
1400

Wait for LED Driver!

** Connect the next LED driver **

Prog. Success : 1 pcs
 Prog. Failure : -----

Done

[Show Curve](#)

Dim Function Setting
☒ 0~10V Dim ☐ Smart Timer Dim [Show Curve](#)
 Mode ☒ Dim to Off ☐ Min. Dim
 Min. Dim Level (%) 10
 Start Dim Voltage (V) 8.5
 End Dim Voltage (V) 1.2

Constant Lumen Output [Show Curve](#)
☒ Enable
 Operation Time = 0 hours
 100% = 1400 mA

K Hours	0	10	20	30	40	50	60	100
%	90	100	100	100	100	100	100	90

EOL
☐ EOL Enable

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Function 5:

Read and check

The Read function will help the user to read the parameters/profile of the LED driver and use the information.

When the LED driver is connected, click the "Read" button will start reading.

FPD PROGRAMMING TOOL

Save Profile Load Profile **Read** Reset Operate Time Program

Information

Interface: ☒ ☐

Programming Tool:

LED Driver Module: ☒ VEGA 100/600-1400 FPD IP67

Output Voltage(V): 28.5 ~ 57.0 Output Current(mA): 300 ~ 1400 Output Power(W): 40 Min. Dim: 10%

Output Current Setting

Current Setting ☒ 1400 mA

☒ Select Current (mA) ☐ Current (mA)

1400 1400

Module Thermal Protection

☐ Enable [Show Curve](#)

6.50 5.00

Minimum Level (%) 50

Dim Function Setting

☒ 0~10V Dim ☐ Smart Timer Dim [Show Curve](#)

Mode ☒ Dim to Off ☐ Min. Dim

Min. Dim Level (%) 10

Start Dim Voltage (V) 8.5

End Dim Voltage (V) 1.2

Constant Lumen Output

☐ Enable [Show Curve](#)

Operation Time = ----hours

100% = 1400 mA

K Hours	0	10	20	40	60	80	90	100
%	100	100	100	100	100	100	100	100

EOL

☐ EOL Enable

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