

# Discontinued Contact Fulham for availability. Not for use in new designs.

T1M1UNV024V-20L

**SPECIFICATION** 

CCCCCSSUUS COMPLIANT IP64

- Thoro LED Driver
- U-OUT 24V
- Dry or Damp
- Suitable for Class I luminaire

- Universal Voltage:100-277V~,50/60Hz
- 0-10V Dimming

- Output Voltage: 24V-
- Output Power: 20W
- Output Current: 833mA Max.

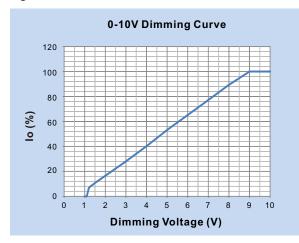
# This Driver Will Operate The Following LED Modules:

Any LED module designed to accept constant voltage input up to 24VDC and has a maximum current of 833mA. Note: Constant voltage modules are usually with on-board circuit besides LEDs, the module & driver compatibility check is preferred before any installation. Some of the modules with big input capacitance may lead to the incompatibility with the dimmable driver, contact Fulham for further assistance.

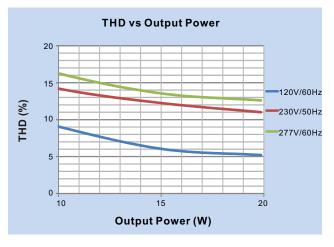
## **General Specifications**

Input Current   0.25A @100VAC, 0.095A @277VAC     Power Factor   >0.9     THD   <20%     Efficiency   >80% Typical@277V Full Load     Driver Type   Constant Voltage     Output Voltage Range   24V=     Output Voltage Range   24V=     Output Current   833mA     Output Power   20W     Number of Output Channels   1 Channel     Dimming Controller Type/Dimming Range   0-10VDC / 100%-10%     RFI/EMI   FCC Part 15B Consumer, EN55015     Output Type   Class 2     Sound Rating   A     Input Surge Protection   Line-Neutral 1kV, Line & Neutral-Ground 2kV     Current Protection   Output Protection     Output Protection   Output Short Circuit Protection     Output Note Protection   Output Protection     Output Protection   Output Protection     Max. Case Temperature   90°C(194°F)     ta   -20°C to 73°C(4°F to 163.4°F)     Service Life   50.000 hours @C 77.5°C(171.5°F)     Approvals / Class   CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL	Input Voltage	100-277V~, 50/60Hz		
THD <20%	Input Current	0.25A @100VAC, 0.095A @277VAC		
THD <20%	Dower Easter	>0.0		
Driver Type Constant Voltage   Output Voltage Range 24V=   Output Current 833mA   Output Power 20W   Number of Output Channels 1 Channel   Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Output Short Circuit Protection Output Output Open Circuit Protection   Max. Case Temperature 90°C (194°F)   ta -20°C to 73°C (-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C (171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL	ТНО	<20%		
Output Voltage Range 24V=   Output Current 833mA   Output Power 20W   Number of Output Channels 1 Channel   Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output to Ground Short Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL	Efficiency	>80% Typical@277V Full Load		
Output Current 833mA   Output Power 20W   Number of Output Channels 1 Channel   Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Sourd Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cursus, Class2, RoHS, Dry or Damp Locations, Type HL	Driver Type	Constant Voltage		
Output Power 20W   Number of Output Channels 1 Channel   Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc.77.5°C(171.5°F)   Approvals / Class CEL, cURus, Class2, RoHS, Dry or Damp Locations, Type HL		24V <del></del>		
Number of Output Channels 1 Channel   Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Output to Ground Short Protection Output to Ground Short Protection   Protections Output Short Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL		833mA		
Dimming Controller Type/Dimming Range 0-10VDC / 100%-10%   RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Short Circuit Protection   Output Open Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL	Output Power	20W		
RFI/EMI FCC Part 15B Consumer, EN55015   Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Short Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	Number of Output Channels	1 Channel		
Output Type Class 2   Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output to Ground Short Protection   Output Short Circuit Protection Output Short Circuit Protection   Output Open Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	Dimming Controller Type/Dimming Range	0-10VDC / 100%-10%		
Sound Rating A   Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Short Circuit Protection   Output Open Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years		FCC Part 15B Consumer, EN55015		
Input Surge Protection Line-Neutral 1kV, Line & Neutral-Ground 2kV   Current Protection Output to Ground Short Protection   Protections Output Short Circuit Protection   Output Open Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL	Output Type	Class 2		
Protections Output to Ground Short Protection   Protections Output Short Circuit Protection   Output Open Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	• • • • • • • • • • • • • • • • • • • •	A		
Protections Output to Ground Short Protection   Output Short Circuit Protection Output Short Circuit Protection   Output Open Circuit Protection Overload Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	Input Surge Protection			
Protections Output Short Circuit Protection Output Open Circuit Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years				
Output Open Circuit Protection   Overload Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years				
Overload Protection   Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	Protections	*		
Max. Case Temperature 90°C(194°F)   ta -20°C to 73°C(-4°F to 163.4°F)   Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years				
ta -20°C to 73°C(-4°F to 163.4°F) Service Life 50,000 hours @Tc 77.5°C(171.5°F) Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL Warranty 5 years				
Service Life 50,000 hours @Tc 77.5°C(171.5°F)   Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL   Warranty 5 years	Max. Case Temperature			
Approvals / Class CE, cURus, Class2, RoHS, Dry or Damp Locations, Type HL				
Warranty 5 years				
	vvarianty	J years		

#### Figure 1







Fulham extends a limited warranty to the original purchaser or first user for a period of 5 years @ Tc 77.5°Cfrom the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please refer to the Warranty Center at www.fulham.com. Specifications subject to change without notice.



T1M1UNV024V-20L

# SPECIFICATION



#### Figure 3

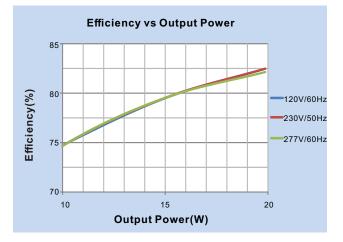
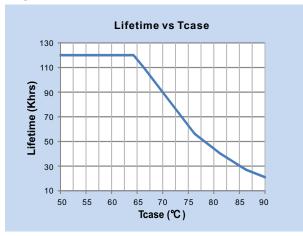


Figure 5

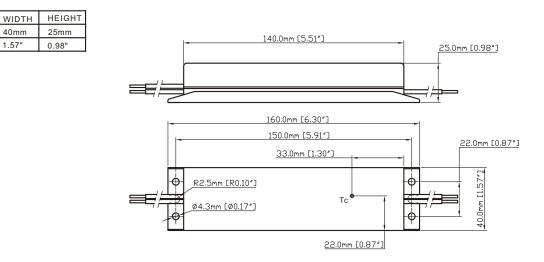


## **Mechanical Data**

LENGTH

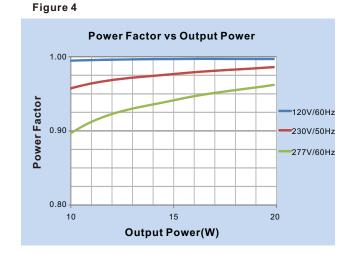
160mm

6.30"



#### Case Tolerance=±0.02"

Fulham extends a limited warranty to the original purchaser or first user for a period of 5 years @ Tc 77.5°Cfrom the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please refer to the Warranty Center at www.fulham.com. Specifications subject to change without notice.





T1M1UNV024V-20L

SPECIFICATION



## **Wiring Diagrams**

INPUT SIDE	LENGTH	
PURPLE	150mm [6"]	
PINK	150mm [6"]	
WHITE	150mm [6"]	
BLACK	150mm [6"]	

OUTPUT SIDE	LENGTH	
RED	150mm [6"]	
BLUE	150mm [6"]	

PURPLE(+10V) PINK(0V) WHITE (N) BLACK(L)	DIMMING VOLTAGE INPUT 100~277V	LED DRIVER	OUTPUT	RED (+ve)

Note: Pink or Gray dimming wire provided. use interchangeably.

#### NOTE :

1.This Driver Must Be Installed By A Licensed Electrician 2.This Driver Must Be Grounded

Fulham extends a limited warranty to the original purchaser or first user for a period of 5 years @ Tc 77.5°Cfrom the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please refer to the Warranty Center at www.fulham.com. Specifications subject to change without notice.