

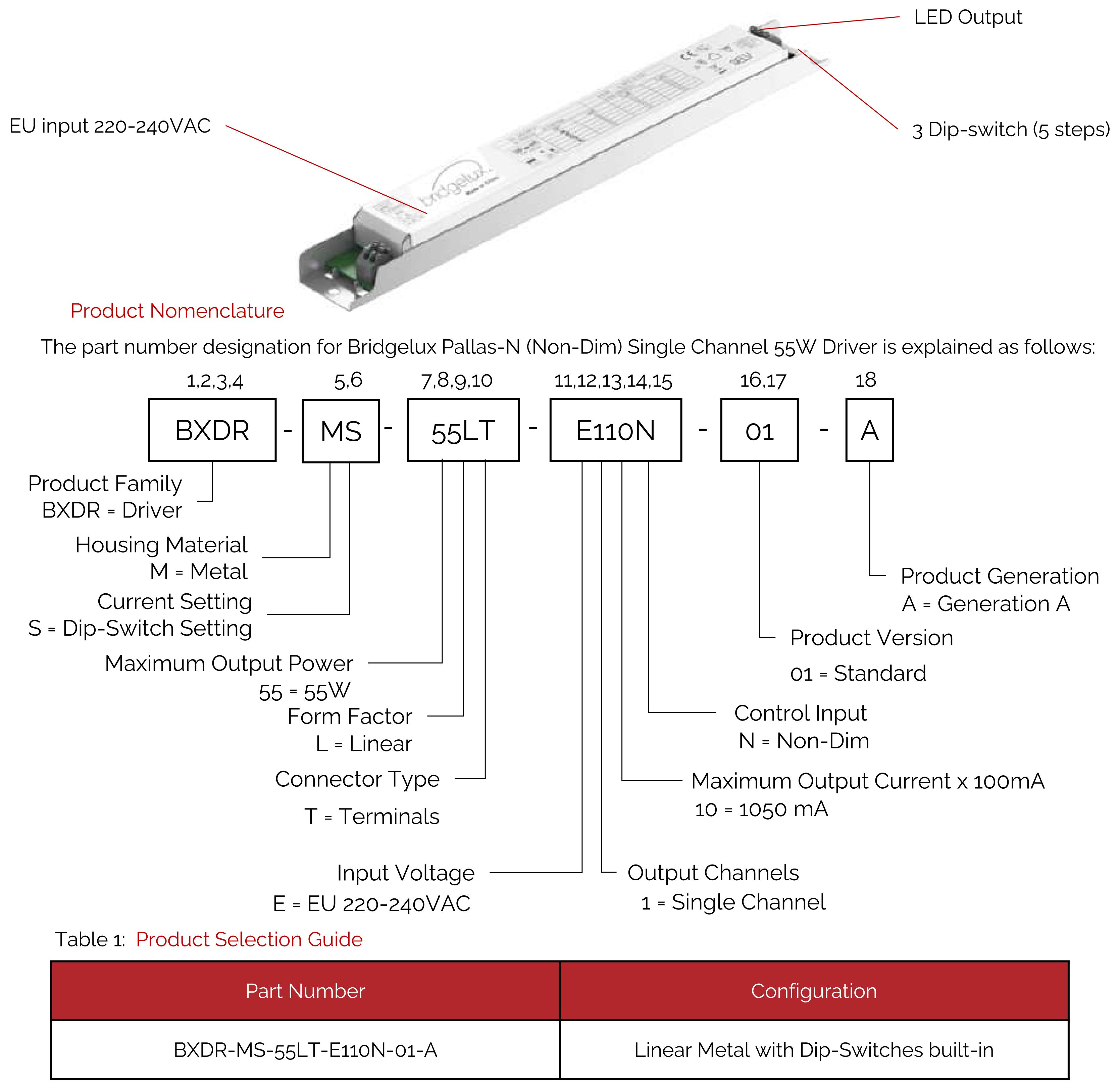
### Bridgelux® Pallas-N Single Channel 55W (Non-Dim) Linear Driver

Product Data Sheet DS1217



## Product Feature Map

Bridgelux Pallas-N (Non-Dim) Single Channel 55W Driver provides dynamic constant current output for LED modules and arrays. This driver provides easy-to-adjust Dip-Switches configurable output current and allows for simple integration of Bridgelux's and all major brands White Arrays and Linear modules. Please visit www.bridgelux.com for more information.



# **Electrical Characteristics**

### Table 2: Input Electrical Characteristics

Parameter	Unit	Specification
Nominal voltage	V	220 – 240
Nominal frequency	Hz	50 / 60
AC voltage range	V	198 – 264
DC voltage range	V	N/A
Nominal current	А	0.40
Power factor (Full load)		≥ 0 <u>.95</u>
THD (Full load)	%	≤ 18
Efficiency (Full load)	%	≥ 90
NO load	W	N/A (Load switching on output side is not permitted)
Protection class		

#### Table 3: Output Electrical Characteristics

Parameter	Unit			Specification		
Nominal voltage range	V	36-52V	36-52V	36-52V	36-52V	36-52V
Maximum voltage(Open Circuit)	Vdc			≤ 60		
Nominal current	mA	800	900	950	1000	1050
Current accuracy	%	+/-5				
Current ripple LF < 200Hz	%	≤ 3				
Pst LM		≤ 1				
SVM		≤ 0.4				
Maximum power	W	55				
Galvanic isolation:		SELV				

# **Electrical Characteristics**



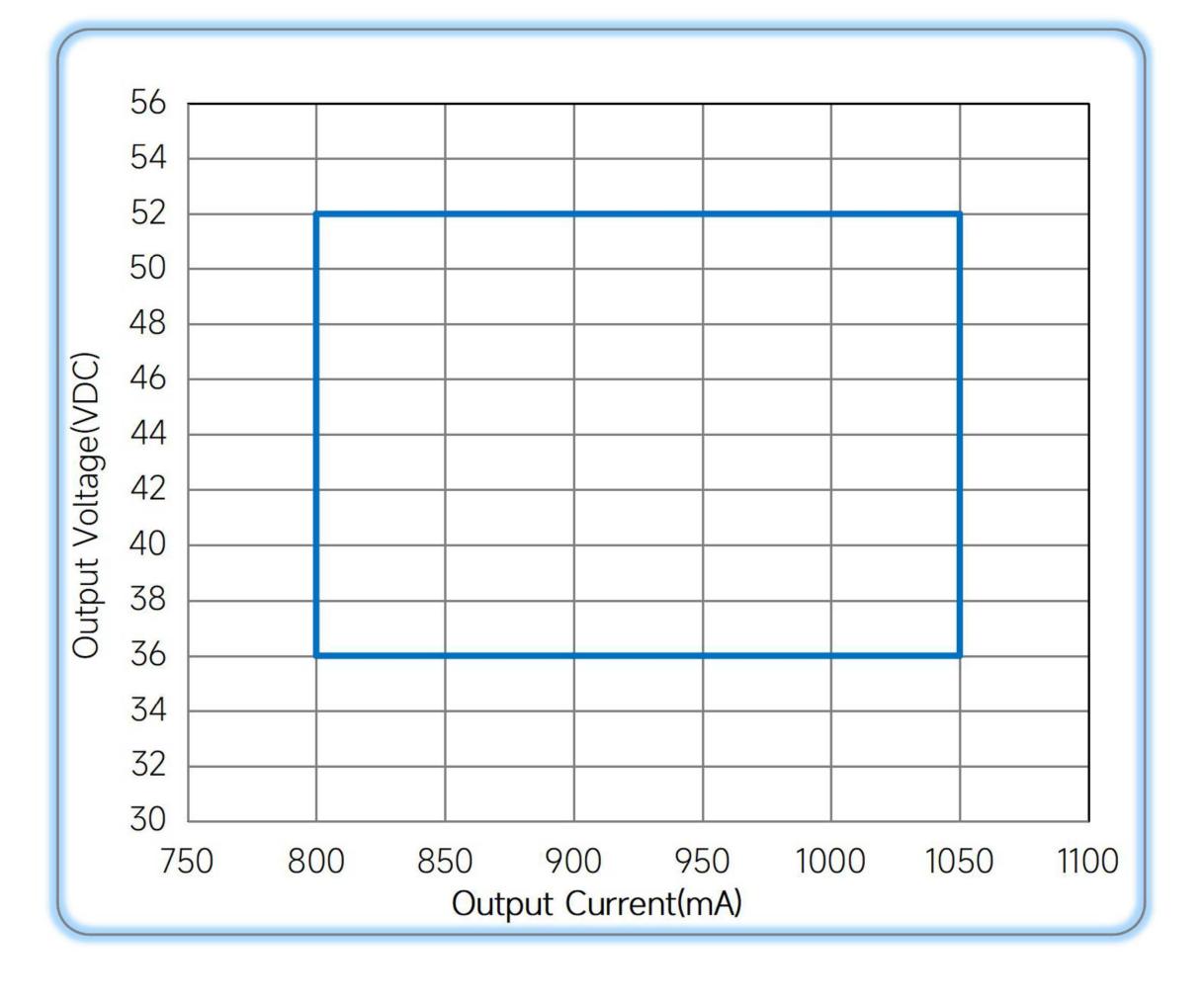


Figure 3: Typical Efficiency vs. Load

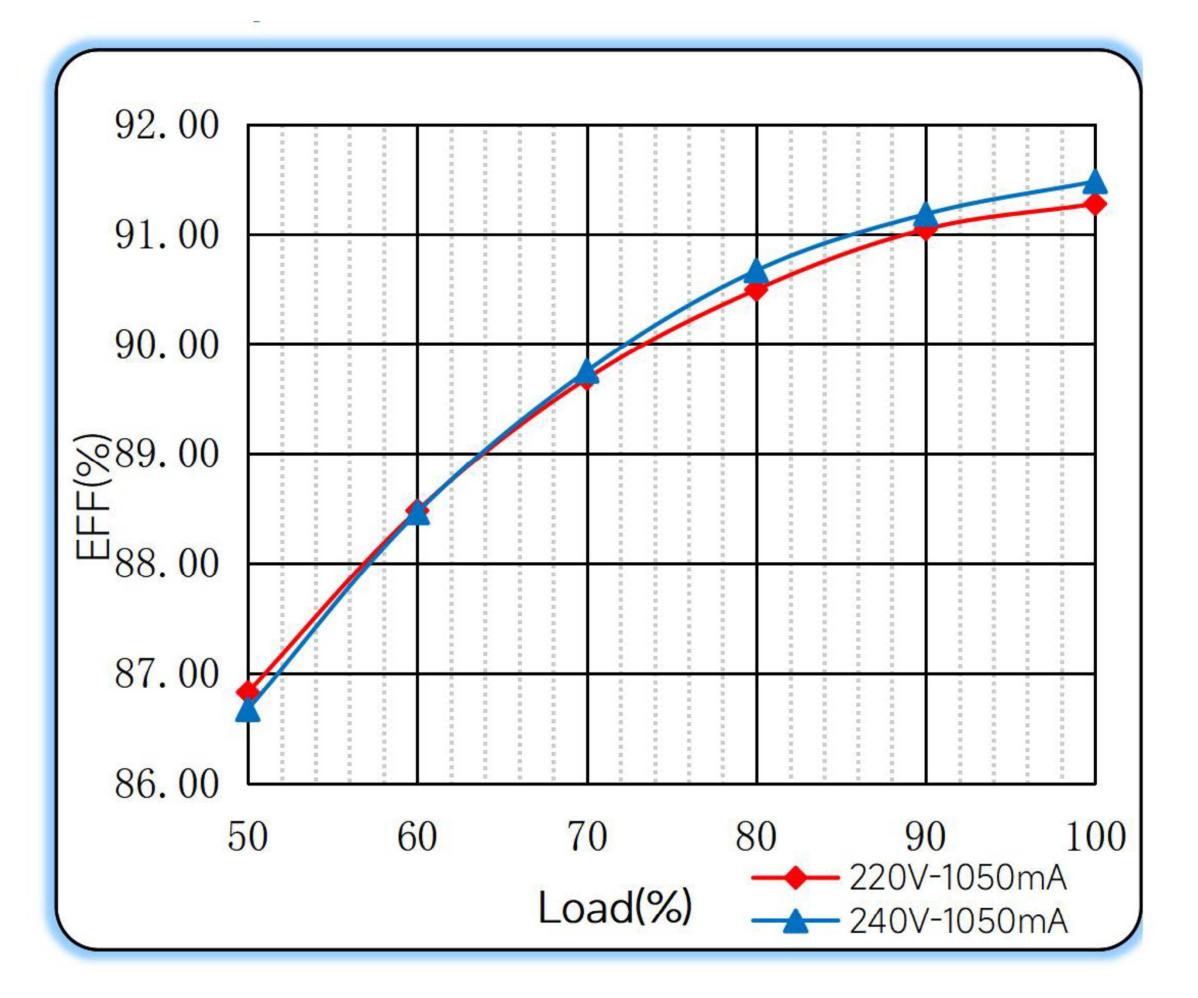
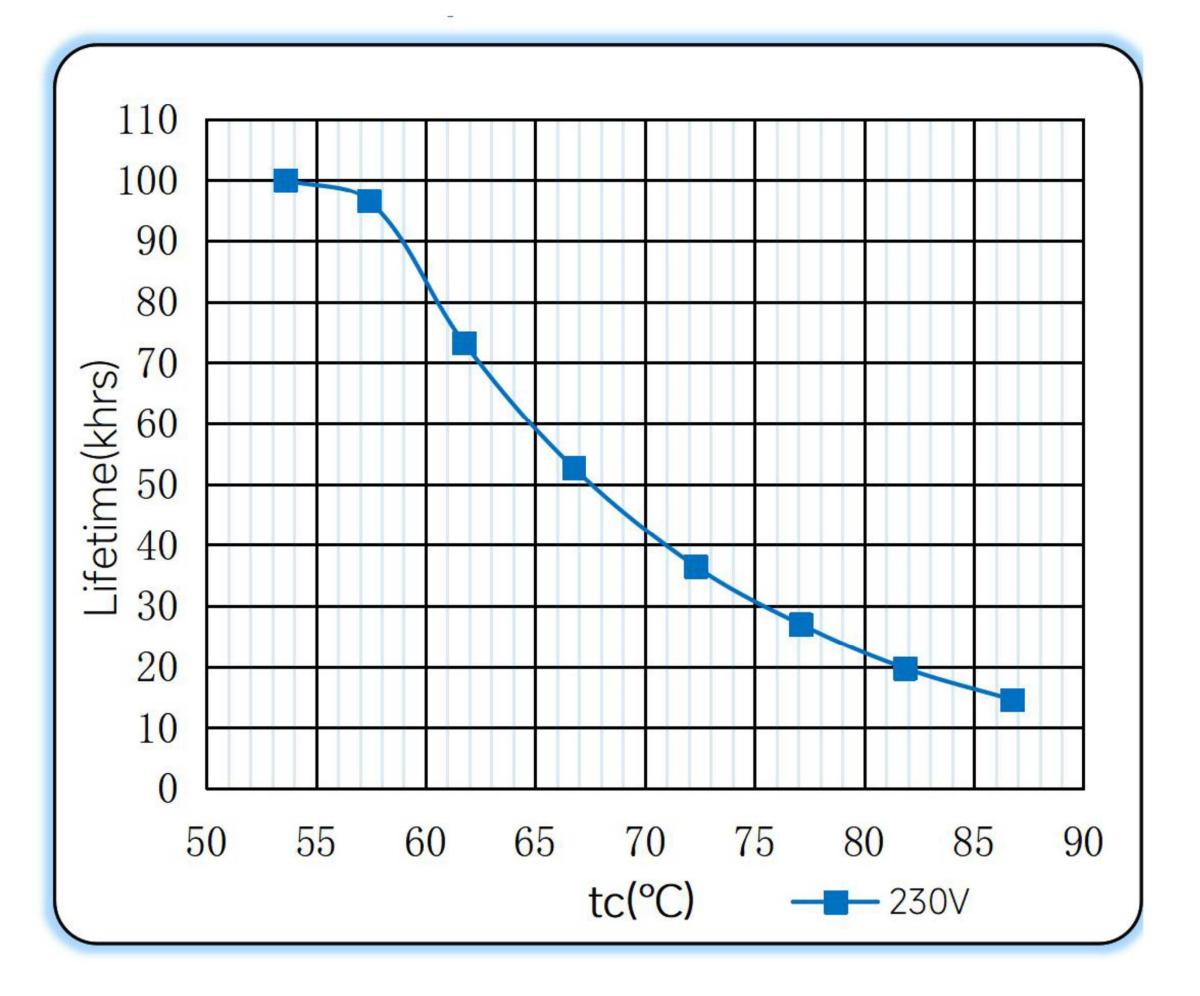
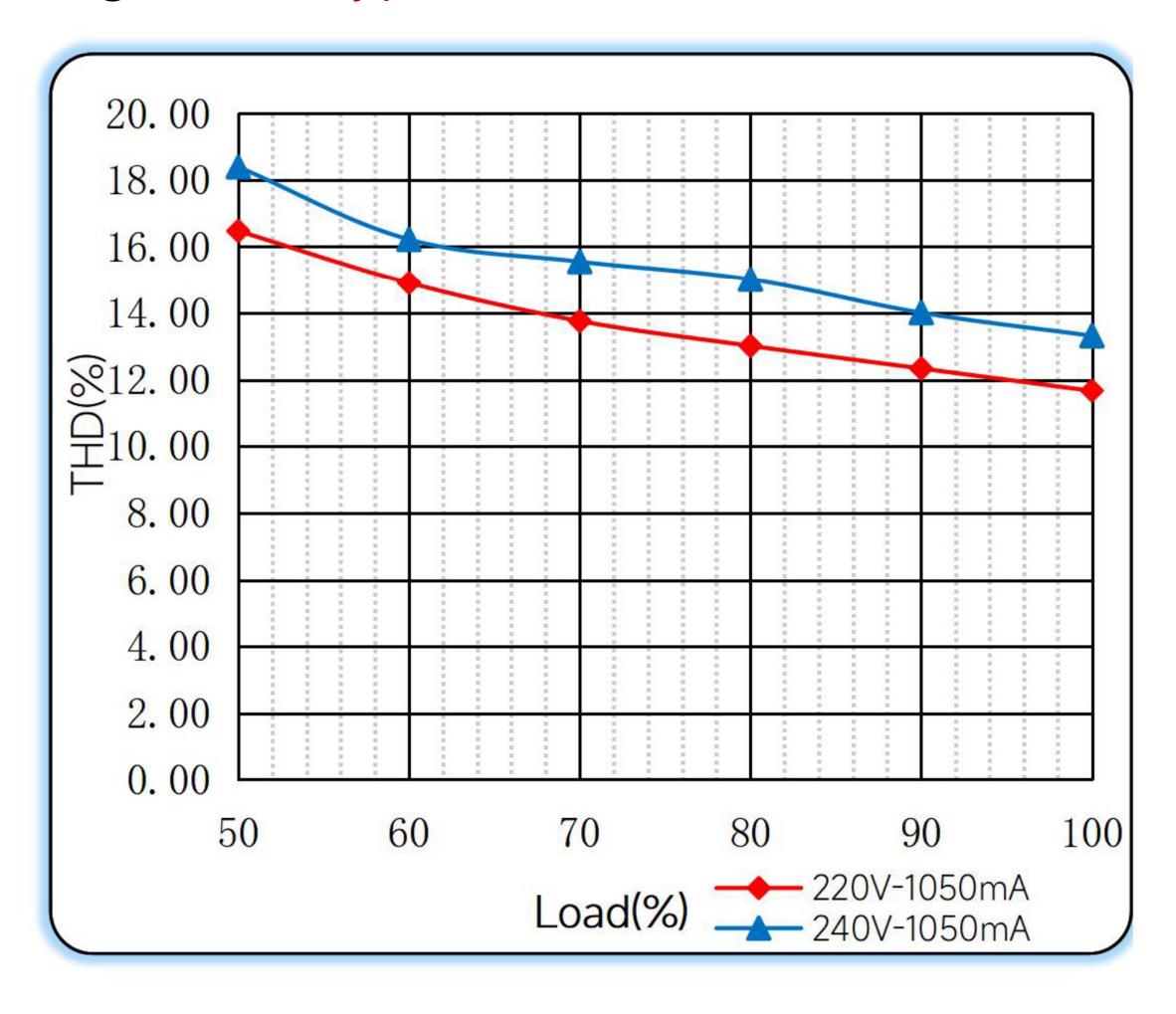


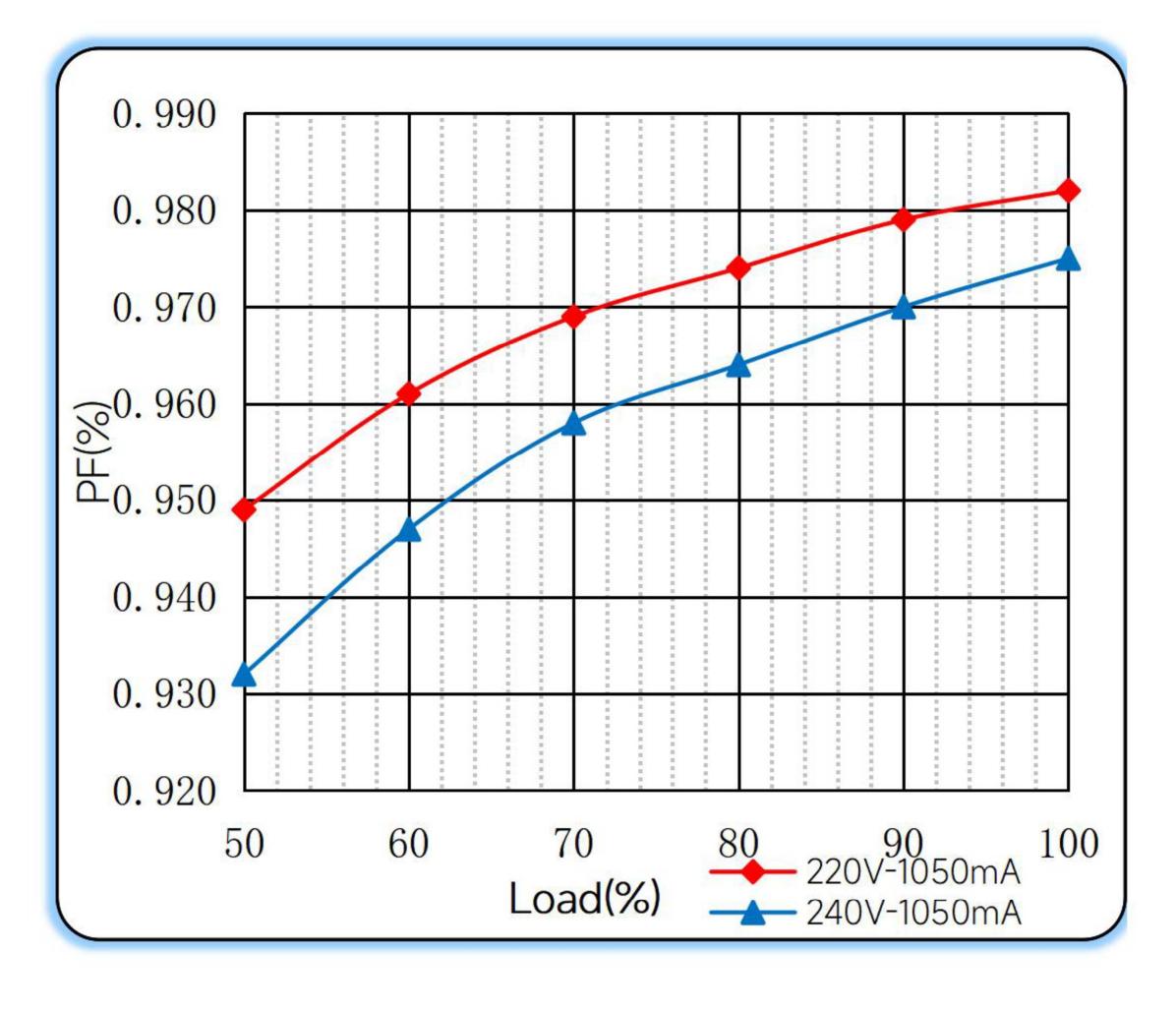
Figure 5: Est. Lifetime vs. Case Temperature





#### Figure 2: Typical THD vs. Load



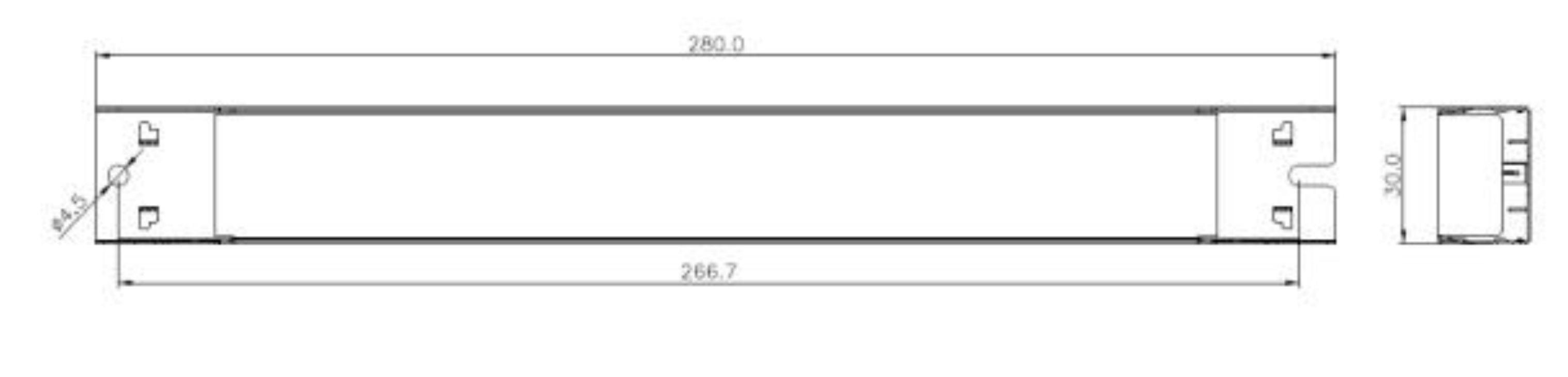


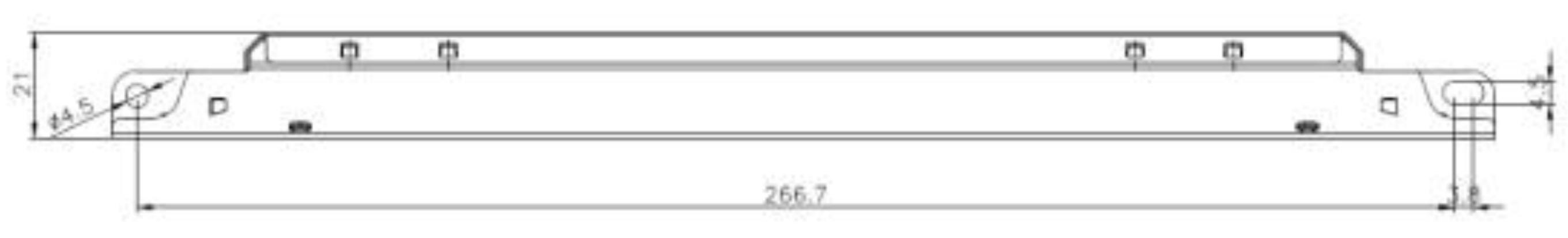
# Mechanical Characteristics

#### Table 4: Product Selection Guide

Characteristics	
Dimensions	280.0
Enclosure Materials	
Weight	
Ingress Protection	

### Figure 6: Mechanical Drawing





- Notes for Figure 6: 1. Drawing dimensions are in millimeters 2. Unless otherwise specified, all linear tolerances are +/-1.0mm.

Specification
).0 mm (L) x 30.0 mm (W) x 21.0 mm (H)
Steel Metal
230.0 g
IP20

## Wiring Diagram

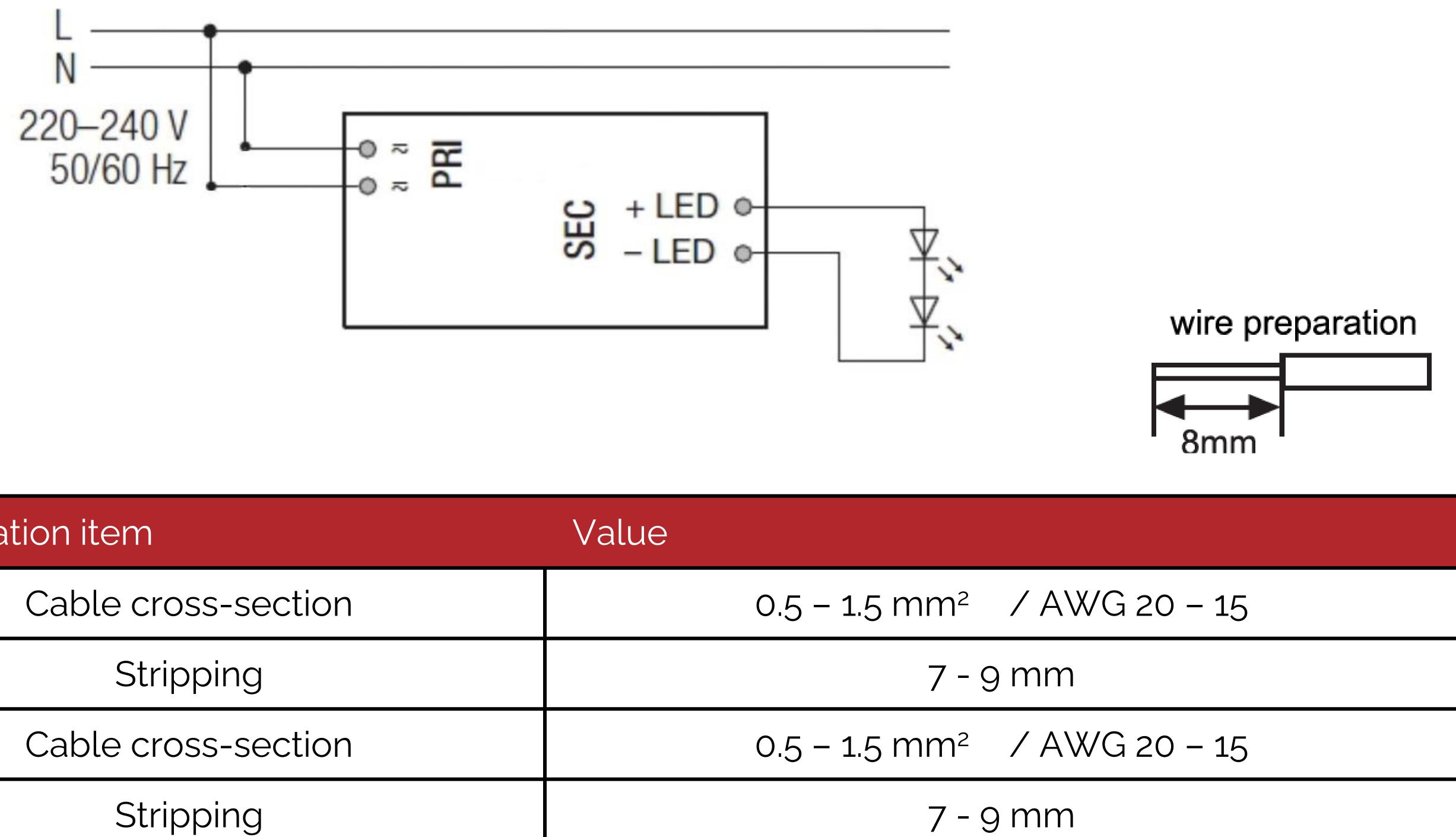


Table 5: Wiring

	Specification item	
PRI	Cable cross-section	
	Stripping	
SEC	Cable cross-section	
	Stripping	

Notes for Table 5: 1. Unless otherwise specified, all linear tolerances are +/-1.0mm

# DIP-switch operation instructions & operating window

#### Table 6: Dip-switch operation instructions & operating window

	Dip-switch setting				
1	2	3	Uout	out	
OFF	OFF	OFF	36-52V	800 mA	
OFF	OFF	ON	36-52V	900 mA	
OFF	ON	OFF	36-52V	950 mA	
ON	OFF	ON	36-52V	1000 mA	
ON	ON	OFF	36-52V	1050mA	

# Environmental and Regulatory Standards

#### Table 7: Environmental Conditions

Parameter	Specification			
Ambient Operating Temperature	-20°C to + 50°C			
Max. Case Temperature Tc	+75°C (max)			
Humidity Rating	Maximum 85% Relative Humidity, non condensing			
Storage Temperature	-20°C to + 60°C			
Expected Lifetime	> 50,000 hours(Tc < 65°C), max. 10% failure rate			

### Table 8: Regulatory Approvals and Compliance

Specification	Reference standard	Condition
Conducted and Radiated EMI	EN 55015:2019+A1:2020 (CISPR 15:2018)	
Harmonic Current Emissions	EN IEC 61000-3-2:2019	
Voltage Fluctuations & Flicker	IEC 61000-3-3:2013+A1:2019	
ESD (Electrostatic Discharge)	IEC 61547:2009 Section 5.2 Test des.: IEC 61000-4-2	4 kV contact discharge, 8 kV air discharge, level 3
Continuous Radiated Disturbance	IEC 61547:2009 Section 5.3 Test des.: IEC 61000-4-3	3 V/m, 80 - 1000 MHz, 80% modulated at distance of 3 meters
Electrical Fast Transient	IEC 61547:2009 Section 5.5 Test des.: IEC 61000-4-4	±1kV on AC power port for 1 minute,
Surge	IEC 61547 Section 5.7 Test des.: IEC 61000-4-5	± 1 kV (differential mode) ± 2 kV (common mode)
Continuous Conducted Disturbance	IEC 61547:2009 Section 5.6 Test des.: IEC 61000-4-6	3V, 0.15-80 MHz, 80% modulated, Level 2
Voltage Dips	IEC 61547 Section 5.8, 5.9 Test des.: IEC 61000-4-11	70% dip during 25 cycles @ 50Hz, 30 cycles @ 60Hz 0% dip during ½ cycles

## Regulatory Standards (continued)

### Table 9: Safety Agency Approvals

Specification	Reference standard	Condition
ENEC / CE / UKCA	EN 61347-1:2015, EN 61347-2-13:2014+A1	



### Design Resources

**Application Notes** 

Please contact your Bridgelux sales representative for assistance on obtaining application support when designing with the Bridgelux Pallas-N Single Channel Driver. For a list of available resources, visit www.bridgelux.com.

### Precautions

#### CAUTION: PRODUCT HANDLING

Handle the Pallas-N Single Channel Driver with care to prevent any damage from mechanical shock It is recommended to handle this driver in a static-free environment To maintain product warranty, the product must not be opened or disassembled and the installer must ensure that the driver's operating conditions do not exceed the maximum conditions stated within this data sheet.

#### CAUTION: PRODUCT INSTALLATION

Incorrect installation of the Pallas-N Single Channel Driver can cause irreparable damage to the driver, connected LEDs.

Pay attention when connecting the LED load and observe the correct polarity of the output terminals as specified in this data sheet and on the driver label. Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

#### CAUTION: ELECTRIC SHOCK

Be aware of the possibility of an electric shock hazard which can result in serious injury or death. Disconnect power before servicing or installing this device.

### Disclaimers

#### MINOR PRODUCT CHANGE POLICY

The rigorous qualification testing on products offered by Bridgelux provides performance assurance. Slight cosmetic changes that do not affect form, fit, or function may occur as Bridgelux continues product optimization.

# About Bridgelux: Bridging Light and Life<sup>TM</sup>

At Bridgelux, we help companies, industries and people experience the power and possibility of light. Since 2002, we've designed LED solutions that are high performing, energy efficient, cost effective and easy to integrate. Our focus is on light's impact on human behavior, delivering products that create better environments, experiences and returns—both experiential and financial. And our patented technology drives new platforms for commercial and industrial luminaires.

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