

# Commercial Presentation

## Philips LED Transformers 24VDC TD

- LED Transformer 60W 24VDC TD 220-240V
- LED Transformer 100W 24VDC TD 220-240V
- LED Transformer 150W 24VDC TD 220-240V

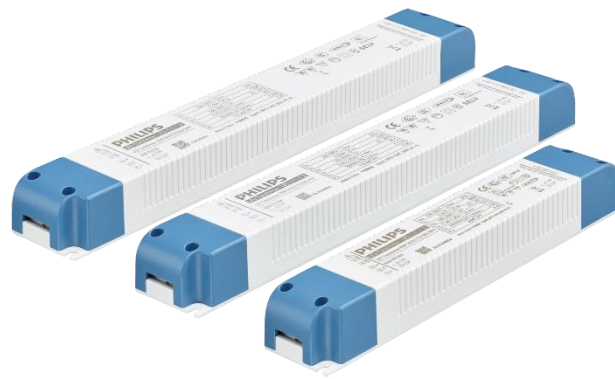
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LED Electronics - Confidential  
January 2021

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# 1. Product introduction

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## Philips LED Transformer 24VDC TD 60W-100W-150W

Philips full-electronic constant voltage LED Transformers are designed to operate 24VDC LED solutions used in general applications such as, retail display lighting and linear accent lighting. They are specifically designed to ensure the highest performance with maximum robustness combined with a long lifetime. The TD versions are equipped with Touch Dim and Dali 2.0 functionality and optimized to prevent camera interference during dimming.

# 1. Product introduction

## Philips LED Transformer 24VDC TD 60W-100W-150W

### Main properties

- Suitable for independent use for Insulation Class II applications applications, SELV
- Mains voltage: 220-240V
- Plastic housing for independent use
- Global approbation marks and certifications
  - CE / ENEC / MM / 110 / Double-insulated / Independent / SELV / DALI 2 / CCC / RCM / KC (150W)/EL
- High efficiency
- Long lifetime with 50khrs
- Wide ambient temperature range
- Stabilized output voltage
- Overtemperature / Overvoltage/ Overpower protection
- Output short-circuit shutdown feature with automatic restart

## 2. Value proposition

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### Philips LED Transformer 24VDC TD 60W-100W-150W

#### **Ultimate energy saving...**

- With Dali 24VDC, dimming, can now be extended to constant voltage lighting. Providing; energy savings, extraordinary flexibility, user control and maintenance benefits.

#### **Easy integration...**

- Designed with connectors and cable clamps. Independent, does not need a box around it
- Suitable for independent use with insulation Class II applications
- SELV operating voltages, ensuring safety
- High thermal margin for easy design-in
- Dali 2.0 standard protocol or simple Touch Dim functionality
- Simple wiring and control

#### **..offering maximum robustness and long lifetime...**

- Ultimate robustness, offering peace of mind and lower maintenance costs
- Lifetime of 50khrs with 5-year warranty

#### **.. offering low cost of ownership...**

- Lower maintenance costs due to long lifetime and high survival rate and device status reporting
- 5 years warranty



# 3. Key application areas

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#### Philips LED Transformer 24VDC TD 60W-100W-150W

*Philips Constant Voltage LED Transformers are independent drivers designed to operate 24VDC LED solutions used in indoor applications such as retail display lighting, linear accent lighting and decorative lighting.*



**Retail display lighting**



**Linear accent lighting**



**Decorative lighting**

## 4. Key benefits

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### Philips LED Transformer 24VDC TD 60W-100W-150W

Key Benefits	Features
Ultimate energy saving	<ul style="list-style-type: none"><li>• High efficiency</li><li>• DALI controlled dimming</li></ul>
Easy integration	<ul style="list-style-type: none"><li>• Designed with connectors and cable clamps</li><li>• Suitable for independent use with insulation II applications</li><li>• SELV operating voltages, ensuring safety even if wiring or LED boards become damaged</li><li>• High thermal margin for easy design-in</li><li>• Easy control wiring with DALI</li></ul>
Excellent Reliability	<ul style="list-style-type: none"><li>• Lifetime of 50khrs</li><li>• Overtemperature / Overvoltage/ Overpower protection</li><li>• Output short-circuit protection</li></ul>
Low total cost of ownership	<ul style="list-style-type: none"><li>• Lower maintenance costs due to long lifetime and high survival rate</li><li>• 5 years warranty</li><li>• DALI control of device status</li></ul>

# 5. Specifications

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## Philips LED Transformer 60W 24VDC TD 220-240V



### Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage range	220 ... 240	Vac	Performance range
Rated input voltage range	198 ... 264	Vac	Operational safety range
Rated input frequency	50 ... 60	Hz	Performance range
Rated input frequency	45 ... 66	Hz	Operational safety range
Rated input current	0.32	A	230Vac, @ rated output power
Rated input power	69	W	230Vac, @ rated output power
Power factor	0.98		230Vac, @ rated output power.
Total harmonic distortion	10	%	230Vac, @ rated output power.
Efficiency (typ)	90	%	230Vac, @ rated output power.
Rated input voltage DC range	186 ... 250	Vdc	Performance range
Rated input voltage DC range	168 ... 275	Vdc	Operational safety range
Rated input current DC	≤ 0.36	Adc	Performance range
Standby power	0.5	W	

### Electrical output data

Specification item	Value	Unit	Condition
Regulation method	Constant Voltage		Rated output voltage = 24VDC
Output voltage range	22.8 ... 25.2	Vdc	@ output current range 0.75 ... 2.5A
Output current range	0.1 ... 2.5	Adc	
Output voltage ripple	< 240	mV <sub>pp</sub>	
Rated output power	60	W	
Line regulation	< 1	%	
Load regulation	< 5	%	
Turn-on delay	< 1	s	With Integrate engine 24VDC module at rated output power
Output voltage rise time	≤ 30	ms	
Hold-up time	≥ 10	ms	

### Electrical data controls input

Specification item	Value	Unit	Condition
Control method	DALI, Touch and Dim *		DALI certification status: please visit <a href="http://www.digitalluminationinterface.org/products">www.digitalluminationinterface.org/products</a>
Dimming range	1 ... 100	%	Based on PWM, f > 2kHz
Isolation controls input to output	Double		Acc. IEC61347-1

\* Note: when using Touch and Dim, do not combine with constant-current type LED drivers in the same controller/switch.

### Operational temperatures and humidity

Specification item	Value	Unit	Condition
Driver ambient temperature	-20 ... +50	°C	At rated output power. Higher ambient temperature allowed as long as Tcase-max is not exceeded.
Tcase-min	-20	°C	
Tcase-max	+75	°C	Max. steady-state Tcase
Tcase-life	+75	°C	For rated driver lifetime
Maximum housing temperature	110	°C	In case of failure
Relative humidity	10 ... 90	%	Non-condensing
Ingress Protection *	IP20		
Noise and hum	≤ 20	dB(A)	

\*: The LED Transformer is primarily intended for independent use. It must not be exposed including but not limited to snow, water and ice or any other chemical agent which may have an adverse affect on driver operation and performance. Exposure may lead to driver failure. It is the luminaire manufacturer's / installer's responsibility to prevent exposure.

## 6. Dimensions

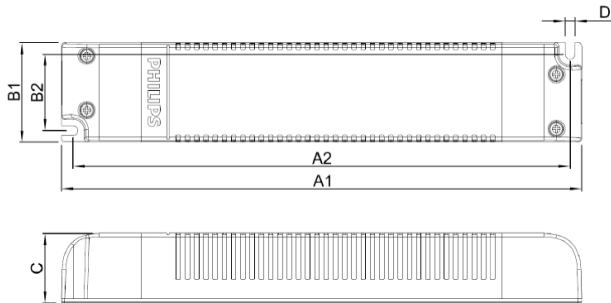
# 6. Dimensions

## Philips LED Transformer 60W 24VDC TD 220-240V



Dimensions and weight

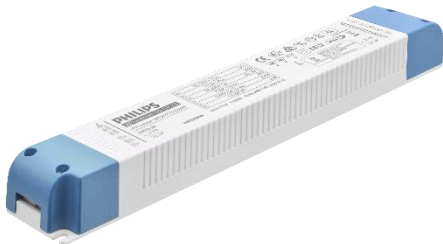
Specification item	Value	Unit	Condition
Length (A1)	225.0	mm	
Width (B1)	43.0	mm	
Height (C)	30.0	mm	
Fixing hole distance (A2)	215.0	mm	Fixing hole diameter (D): 4.2 mm
Fixing hole distance (B2)	33.0	mm	
Weight	315	gram	





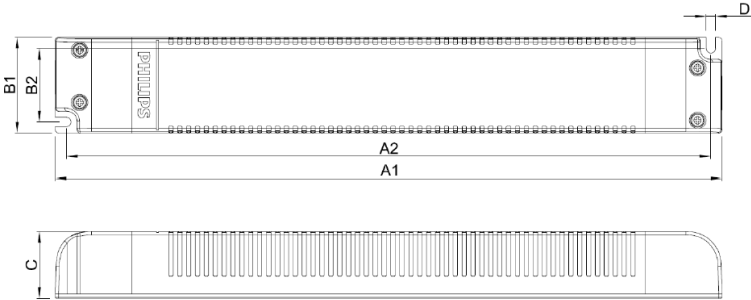
# 6. Dimensions

## Philips LED Transformer 100W 24VDC TD 220-240V



Dimensions and weight

Specification item	Value	Unit	Condition
Length (A1)	300.0	mm	
Width (B1)	43.0	mm	
Height (C)	30.0	mm	
Fixing hole distance (A2)	290.0	mm	Fixing hole diameter (D): 4.2 mm
Fixing hole distance (B2)	33.0	mm	
Weight	460	gram	

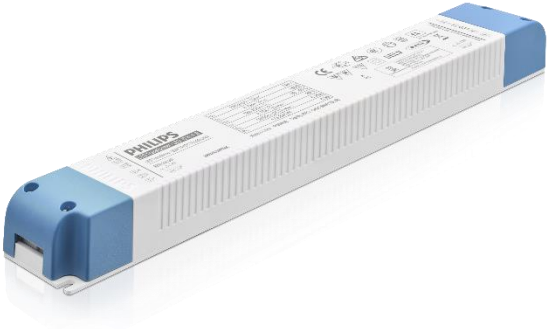
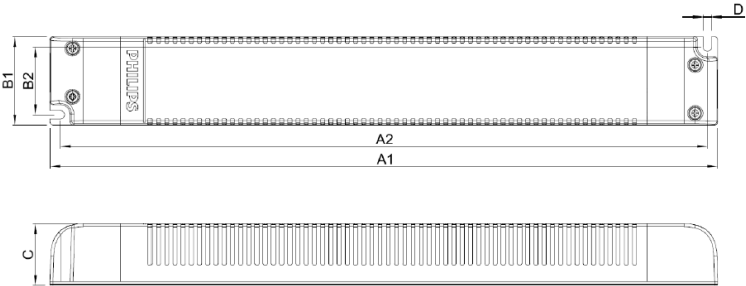


# 6. Dimensions

## Philips LED Transformer 150W 24VDC TD 220-240V

Dimensions and weight

Specification item	Value	Unit	Condition
Length (A1)	325.0	mm	
Width (B1)	43.0	mm	
Height (C1)	30.0	mm	
Fixing hole distance (A2)	315.0	mm	Fixing hole diameter (D): 4.2 mm
Fixing hole distance (B2)	33.0	mm	
Weight	555	gram	



# 7. Certificates

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## Philips LED Transformer 60W 24VDC TD


- CE / ENEC / CB / CCC / MM Mark / SELV / independent (RCM / KC coming soon)

### LED Transformer 60W:

	<b>PHILIPS</b>		U <sub>in</sub> : 220-240V~	U <sub>out</sub> : 24V=	
	<b>LED Transformer / LED 控制装置</b>		I <sub>in</sub> : 0.32A~	P <sub>out</sub> : 60W	
	LED Transformer 60W 24VDC TD 220-240V		U <sub>in</sub> : 186-250V=	t <sub>a</sub> : -20...50°C	
	9290022 005		I <sub>in</sub> : 0.36-0.26A=	t <sub>c</sub> Max.: 75°C	
	22222WYX XXXX		f <sub>in</sub> : 50/60Hz; DC	I <sub>o</sub> Max.: 2.5A	
		P <sub>in</sub> : 69W	PF: 0.95		
Made in China 中国制造 Signify, IBRS 10461,5600 VB, NL					

# Philips LED Transformer 100W 24VDC TD

- CE / ENEC / CB / CCC / MM Mark / SELV / independent (RCM / KC coming soon)




**DALI**  
DALI 3  
DALI 4  
DALI 5  
DALI 6  
DALI 7  
DALI 8  
DALI 9

# PHILIPS

## LED Transformer / LED 控制装置

LED Transformer 100W 24VDC TD 220-240V


9290 022 006




zzzzzwwyxxxxx







U <sub>in</sub> :	220-240V ~	U <sub>out</sub> :	24V =
I <sub>in</sub> :	0.53A ~	P <sub>out</sub> :	100W
U <sub>in</sub> :	186-250V ~	I <sub>a</sub> :	-20...50°C
I <sub>in</sub> :	0.62-0.47A =	t <sub>c</sub> Max.:	85°C
f <sub>in</sub> :	50/60Hz; DC	I <sub>o</sub> Max.:	4.17A
P <sub>in</sub> :	116.6W	PF:	0.95






Made in China 中国制造 Signify, IBRS 10461,5600 VB, NL







zzzzzwwyxxxxx


\* t<sub>c</sub>

U<sub>out</sub> open circuit: 60 VDC Max

## Philips LED Transformer 150W 24VDC TD

- CE / ENEC / CB / CCC / MM Mark / SELV / independent/KC (RCM coming soon)





**PHILIPS**

**LED Transformer / LED 控制装置**

LED Transformer 150W 24VDC TD 220-240V







9290 022 007







zzzzzzwxyxxxxx

$U_{in}$ : 220-240V~	$U_{out}$ : 24V=
$I_{in}$ : 0.79A~	P <sub>out</sub> : 150W
$U_{in}$ : 186-250V=	$\theta_a$ : -20...50°C
$I_{in}$ : 0.90-0.67A~	$t_c$ Max.: 85°C
$f_{in}$ : 50/60Hz; DC	$I_o$ Max.: 6.25A
P <sub>in</sub> : 173.8W	PF: 0.95



Made in China 中国制造 Signify, IBRS 10461,5600 VB, NL

RoHS-Plastikschrott  
Ext. high risk task areas

\* tc

U<sub>out</sub> open circuit: 60 VDC Max

## 8. Ordering details

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### Philips LED Transformer 24VDC TD 60W-100W-150W

Product	Qty. box packing (pcs)	GPC (12NC)	EOC
LED Transformer 60W 24VDC TD 220-240V	20	929002200506	692234193150500
LED Transformer 100W 24VDC TD 220-240V	10	929002200606	692234193152900
LED Transformer 150W 24VDC TD 220-240V	10	929002200706	692234193154300

The products will be released based on make-to -stock (MTS) principle. Forecasted orders can be delivered from stock and non forecasted orders can be delivered per non forecasted LT.

CSO can be always changed depending on the forecast volumes and number of sales orders. We have safety stock arranged for design-ins



