

A woman in a blue long-sleeved shirt and black leggings is running on a sidewalk at night. In the background, a city skyline with many lit-up buildings is visible across a body of water. Streetlights illuminate the path. The overall scene is dark, emphasizing the artificial lighting from the city and the streetlights.

**PHILIPS**

LED drivers



# Lighting the future with LED technology

Flexible and reliable range of LED drivers





# “Innovation for you”

For more than 120 years Philips has been the thought leader in innovation. Our leadership is based upon a deep understanding of customer needs. We listen to and learn from them. It is our ambition to support, guide and innovate together with our OEM customers to enable them in creating value towards their customers. We offer them total reliability, superior quality of light and a wide range of product solutions for each application and every customer requirement.

## “Welcome in the era of connectivity”

Whilst being in the midst of LED transformation, the next innovation wave has already started: lighting that connects people. Connected lighting brings tremendous opportunities for energy and maintenance management. It enhances user comfort and enables substantial cost benefits. It is my commitment to continue our investments in value creation. We focus on meaningful innovations and customer service offers, such as design-in support, easy design-in tools, My Technology Portal and Connected Building Blocks. These are key pillars of our OEM strategy.

**Bob Esmeijer**  
Business Leader LED Electronics





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**Mexico**  
Manufacturing

Chicago

**Chicago,  
USA**  
R&D

Eindhoven

**Poland**  
Manufacturing

# Beyond illumination

At Philips, we have been working hard to illuminate the world since 125 years ago. We are constantly listening to you, our customers and also to our end-users, to drive the latest transformation in LED lamps, in LED electronics and drivers.

By using digital innovation and connecting LED lights to controls, networks, devices and apps, we help our customers create novel lighting experiences with outstanding business results and energy savings.

With our global network, we can offer customers a global perspective supported by strong local know-how and technical expertise. Our experienced team is always on hand to design-in, spec-in and propose solutions best suited to your needs, complete with supply chain considerations and aftersales support.

Whatever your lighting needs, whether it's increased efficiency, quality, cost-effectiveness or environmental benefits, our team can put together the best plan possible for you.



## Leaders in LED.

Locally present with a global footprint.  
Coming together to service your needs.

innovation  you







# Why Philips **LED drivers?**



Long-lasting and requiring almost no maintenance, LED based light sources are excellent for all lighting applications. However to achieve optimal performance, reliable and robust drivers are needed to match the long lifetime of the LEDs. Driver solutions must always accommodate new generations of LEDs, to also make them 'future-proof' for use in more sustainable applications.

- 1 Innovation leader in LED drivers technology**  
State-of-the-art portfolio, continuously upgraded and enhanced based on the latest technology.
- 2 Reliability and trustworthy service**  
We are a one-stop shop taking care of comprehensive design services, manufacturing needs, supply chain management and customer care concerns.
- 3 Excellent portfolio and an efficient platform approach**  
Complete range of drivers from the intelligent to the affordable, and a fast-lane launch approach to address your urgent requirements and specifications.



# Application areas

## Outdoor drivers



Flood light for carpark



Streetlight for roads

## Indoor point drivers



Track light for museums



Downlight for hospitality



Spotlight for retail



## Indoor linear drivers



Highbay for warehouses



Panel light for hospitals



Highbay for factories



Troffer light for offices

# LED drivers portfolio

Our range of Philips LED drivers are categorized for you to match your business requirements with ease. Refer to each range description to find out more.

	Outdoor drivers	Point drivers	Linear drivers
 <b>Statement</b> Connected and programmable	Xitanium Full Programmable 	Xitanium Programmable 	Xitanium Programmable 
 <b>Performance</b> Flexible and future-proof	Xitanium Lite Programmable   Xitanium Adjustable Output Current 	Xitanium Adjustable Output Current   	Xitanium Adjustable Output Current  
 <b>Core</b> Performance and reliability	Xitanium Dim Single Current  		Xitanium Single Current 
 <b>Entry</b> Foundation	Xitanium Single Current 	CertaDrive Single Current    	



# Our range

Philips has designed these main range to help you with your application segmentation, and to facilitate easy selection of the most appropriate drivers to meet your needs.



## Xitanium LED Drivers

Xitanium LED drivers are reliable, robust and offer flexibility through the operating window and its smart features. They are designed for indoor and outdoor applications, and are available in various form factors with fixed light output, dimmable and programmable options. Offering the flexibility of carrying out late stage programming and drivers configuration, when required.

### Features and benefits

Low ripple current for specific products.  
Camera-friendly and minimizes flickering.

Lifetime: Up to 50,000 hours lifetime.

Intelligent, DALI 2.0 compliant, enabling connectivity/Internet of Things (IoT).

Wireless configuration technology.

Best in class performance and energy efficient.  
Comes in spec-grade performance (THD/PF).

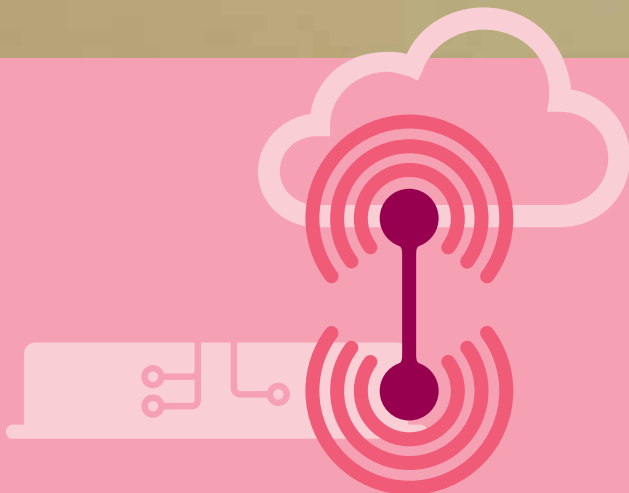
## CertaDrive LED Drivers

CertaDrive LED drivers are designed to meet the market needs for basic lighting. They are ideal for high volume applications together with CertaFlux LED modules. Offering basic specifications, such as specific current and voltage settings, they come with a standard system warranty for your peace of mind.



Philips Xitanium SR driver

# Driving **connected** **lighting**



Connected lighting brings opportunities for energy saving, data collection, space management, and more. It enhances user comfort and enables cost benefits. The Philips Xitanium SR LED driver plays an important role as a building block for connected luminaires. It works seamlessly with a range of sensors, and smooths the path to the Internet of Things. With the Xitanium SR LED driver, it's easier to create luminaires for connected lighting applications.





### **Simplified luminaire design**

The Xitanium SR LED driver is sensor ready. This means it doesn't just provide power conversion for LED lighting, it also features integrated sensor controllers, power supplies and energy metering functionality. Everything is integrated, hence very few external components are required. As a result, luminaire design, manufacture and installation are greatly simplified and more cost effective.

### **Every luminaire becomes a node**

By delivering actionable operational data such as energy consumption, daylight harvesting and occupancy patterns to a building management

system, every luminaire becomes a connected lighting node. The Xitanium SR LED driver is a simple and cost effective way of stepping into the rapidly growing world of connected lighting.

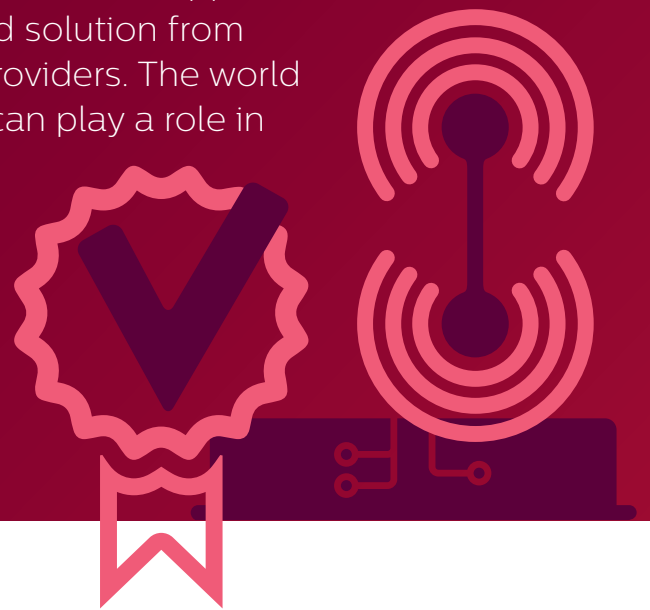
### **Accelerate your connected lighting business**

Standard DALI 2.0 communications between driver and sensor means that you can choose from a wide range of sensor manufacturers to design the solutions that are right for you and your customers. By working together and matching technologies, OEMs, sensor manufacturers and system integrators help realize seamless connectivity.

# SR Certified program

For the ultimate reassurance of connectivity, Philips has also introduced the SR Certified program, which is a list of all companies, components and sensors that are certified to work with the Xitanium SR LED driver. It's the seal of approval you need for putting together a connected solution from participating parts suppliers and service providers. The world of connected lighting is growing fast. You can play a role in accelerating its growth.

The SR Certified program is a foundation for successful partnerships. Let's connect.



## EasyAir office sensor the wireless solution



The Philips EasyAir office sensor wireless sensor range is compatible with the Xitanium SR LED driver. These sensors provide cost effective, mainstream sensing, as well as easy integration.

Adding sensors to luminaires brings huge benefits in terms of energy management and building regulation conformity. Existing sensors are bulky, expensive and difficult to design-in. The Philips EasyAir office sensor changes all this. The sensor's single-box, luminaire-mounting format and two wire connection helps you to save time and costs when integrating occupancy

sensing and daylight harvesting into your luminaires. The EasyAir office sensor is designed to be luminaire-integrated which reduces the likelihood of errors during installation.

EasyAir office sensor helps to reduce time to market thanks to its full compatibility with Xitanium SR LED drivers. This eliminates the need for auxiliary devices and eliminates time consuming configuration issues. The simple, two-wire connection from driver to sensor also helps reduce design-in complexity.

For project specifiers, EasyAir office sensor helps to increase efficiency by enabling energy saving and compliance without impacting project time or aesthetic. There's no need to wire sensors outside the ceiling fixture, eliminating mistakes when placing the sensors and luminaires. Projects can be completed quickly, while the integrated sensors leave the ceiling uncluttered.

Another EasyAir office sensor breakthrough is the ability to configure via SimpleSet which means the sensors

can leave your factory fully configured, ready for app-based commissioning on site. The Android based app simplifies programming occupancy and daylight sensing parameters, while enabling you to fine-tune lumen levels.

The EasyAir office sensor is ready for the future. By integrating the EasyAir office sensor into your luminaire, you are now ready to enter the connected world of tomorrow.

The new EasyAir office sensor SNS200 Advanced Grouping sensor is the latest addition to the EasyAir office sensor range. This sensor has on-board Zigbee and infrared communication to enable Advanced Grouping behavior in offices. It offers a perfect solution for applications where multiple luminaires need to be grouped together to respond to motion and daylight changes. All this without pulling wires and opening ceilings. Scenes can be used to create different settings in combination with Zigbee Green Power wireless dimmer switches. With your smartphone you can commission the groups with ease using our Philips Field Apps.



# Connectivity in linear lighting

The Xitanium SR LED driver is designed for use with sensors in building management systems. Through an integrated power supply, sensors and wireless modules are powered directly from the driver. The driver also features integrated energy metering for use in building management systems from the SR Certified partner program.

The EasyAir office sensor wireless Zigbee sensor is a presence and daylight sensor that can be used with the Xitanium SR LED driver to create a cost-effective, easy-to-use and mainstream dimming system with a short payback. Powered by the driver, it is easy to integrate into your luminaire.

## Xitanium SR driver

Product type	Housing type	Output current	Output voltage	Dimming	DALI power supply max. supply current	Energy metering accuracy	Order code
	mm	mA	V	%	mA	%	12NC
Xitanium SR 75W 0.7-2.0A 54V	360 x 30 x 21	700-2000	27-54	100-1	52	4	929001505006

## EasyAir office sensor

Product type	Housing (Volume inside luminaire)	Req. Luminaire hole	Occupancy technology	Detection area at 3m height (minor movement)	Detection area at 2.4m height (minor movement)	Viewing angle	Full light dim level	Operating Ambient temperature	Order code
	mm	mm		m	m		%	°C	12NC
EasyAir office sensor StandAlone SNS100	50 x 19 x 31.5 (50 x 19 x 24)	44 x 17	Passive IR	3.6 x 3.4	2.9 x 2.7	X=72°Y=86°	5-100	0-55	929000738303
EasyAir office sensor Advanced Grouping SNS200	50 x 19 x 31.5 (50 x 19 x 24)	44 x 17	Passive IR	3.6 x 3.4	2.9 x 2.7	X=72°Y=86°	5-100	0-55	929000766803

## In line with your requirements

- Cost effective – fewer components, simpler supply chain and faster installation
- Design-in simplicity – unified interface lets you choose sensors and network partners
- Flexible – can be connected to a range of sensors for system integration
- Luminaire-based data collection – gather valuable sensor data for the network
- Installation friendly – fewer components, less ceiling wiring, less time on the ladder







# Outdoor drivers

Philips outdoor LED drivers offer extreme reliability and maximum flexibility, enabling you to get the best out of LED lighting applications.

## Portfolio

Outdoor drivers	Dimming		Basic features and performance		
	DALI Dim	1-10V	SimpleSet	Adjustable output current (AOC)	Housing/ installation
<b>S</b> Statement	Yes	No	Yes	Yes	Built-in
<b>P</b> Performance	No	Yes	Yes	Yes	IP67/Built-in
	No	No	No	Yes	IP65
<b>C</b> Core	No	Yes	No	No	IP67/Built-in
<b>E</b> Entry	No	No	No	No	IP67/Built-in





# Xitanium Full Programmable

Outdoor

Philips Xitanium full programmable LED drivers are specifically designed to deliver the highest performance, protection and configurability. The portfolio offers both central and standalone dimming protocols further increasing the energy savings and CO2 reductions achieved with LED lighting. The technology ensures maximum robustness and protection combined with a very long lifetime.

In this product family Philips introduces new drivers in a stretched form factor with state-of-the-art features, which offer high value for both OEM customers and end-users. The products can replace the existing programmable outdoor LED drivers and will bring significant improvement in programming, assembly into a luminaire and electrical performance. One of the key features is SimpleSet, an easy and fast way to configure the drivers in a production environment, without the need to power the driver.

## Features

- Multitone configuration interface
- High surge protection (CM/DM)
- Long lifetime and robust protection against moisture, vibration and temperature
- Configurable operating windows (AOC)
- Multiple control interfaces: DALI, 0-10V dim
- Autonomous dimming via integrated DynaDimmer
- Thermal protection for driver and for module (MTP)
- Constant Light Output (CLO)
- Adjustable Start-up time (AST)
- Adjustable Light Output (ALO)
- End-Of-Life indicator (EOL)
- BIS certified

## Benefits

- Ultimate robustness, offering peace of mind and lower maintenance costs
- Fully programmable LED drivers designed for the new digital and connected lighting world
- Extended diagnostics via MultiOne
- Easy to design-in, configure and install for Class I and Class II applications
- Energy savings through high efficiency and via multiple dimming options

## Applications

- Road and street lighting
- Area lighting
- Industry lighting



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 150W .35 - .70A GL Prog sXt	30 - 150W	350-700mA	125-280V	DALI / 0-10V / DynaDim	0.95	≤ 20%	3 kV	80°C	240.5 X 59.1 X 37.1	929000702202

# Xitanium Lite Programmable

Outdoor

Philips Xitanium lite programmable LED drivers are value engineered to deliver a carefully selected feature set and high-end performance, making it a preferred choice for many outdoor applications. The portfolio offers high flexibility with a customizable operating window, enabling differentiation in LED lighting design via system tuning and being prepared for LED efficacy upgrades.

In this product family Philips introduces new drivers in a stretched form factor with a balanced features set, which offer high value for both OEM customers and end-users. The products can replace the existing programmable outdoor LED drivers and will bring significant improvement in programming, assembly into a luminaire and electrical performance. One of the key features is SimpleSet, an easy and fast way to configure the drivers in a production environment, without the need to power the driver.

## Features

- Multitone configuration interface
- High surge protection
- Long lifetime and robust protection against moisture, vibration and temperature
- Configurable operating windows (AOC)
- External control interface (1-10V) available
- 1 step autonomous dimming via integrated DynaDimmer LITE
- Integrated driver thermal protection
- Simplified linear version of Constant Light Output (CLO LITE)
- BIS certified

## Benefits

- Ultimate robustness, offering peace of mind and lower maintenance costs
- Balanced configurable feature set covering the most common applications
- Easy to design-in, configure and install for Class I and Class II applications
- Energy savings through high efficiency and via multiple dimming options
- Consistent waterproof performance through the lifecycle

## Applications

- Road and street lighting
- Area lighting
- Tunnel lighting
- Highbay lighting



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xi LP 150W 0.2-0.7A S1 230V S240 sXt	7 - 150W	200 - 700mA	90 - 283V	0-10V/DynaDim	≥ 0.99	≤ 10%	6 KV	90°C	240.5 X 58.6 X 37.8	929000962806

# Xitanium Adjustable Output Current

Outdoor

Philips Xitanium LV LED adjustable current drivers are specifically designed for maximum flexibility and reliability in low voltage outdoor applications. With superior surge protection, these durable, independently housed drivers deliver consistent, high performance to luminaires even after multiple indirect lightning strikes – an ideal solution for OEMs that need reliable, adjustable output in a rugged independent form factor.

## Features

- Proven robustness and reliable electronic driver design
- Adjustable output current with wide window
- Long lifetime to withstand harsh outdoor conditions
- Compact size, fitting with varied and critical luminaires.
- Suitable for Class I isolated luminaires
- Authorized certificate: ENEC, CB, CE and CCC\*
- BIS certified

## Benefits

- Low voltage/high current output fits the application of LED strings connecting in parallel
- AOC (Adjustable Output Current) gives the full flexibility to output different currents to spec-in different projects
- Easy adjustment of output current/voltage by only one screwdriver
- Various power wattage drivers that are related to the lumen packages/applications
- Consistent waterproof performance through the lifecycle
- IP rated housing support luminaires without fully sealed gearbox

## Applications

- Road and street lighting
- Area and flood lighting
- Tunnel lighting
- High bay lighting



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 150W 0.7 – 1.8A 240V I	45 – 150W	700 – 1800mA	30 – 85V	Non Dimmable	≥ 0.95	≤ 10%	4 KV	80°C	210 X 59.1 X 37.1	929001408006
*Xitanium 100W 2.1 – 4.2A AOC 230V 1220	100W	2.1 – 4.2A	12 – 48V	Non Dimmable	0.95	≤ 10%	4 KV	80°C	220 X 68.2 X 45	929001404580
*Xitanium 150W 2.45 – 4.9A AOC 230V 1220	150W	2.45 – 4.9A	15 – 61V	Non Dimmable	0.95	≤ 10%	4 KV	80°C	220 X 68.2 X 45	929001404480





# Xitanium Dim Single Current

Outdoor

LED-based light sources are an excellent solution for outdoor environment. They are long-lasting and require low maintenance. However, to get the best out of the LEDs, these light sources require highly reliable and efficient LED Drivers. The new Philips Xitanium Dimmable (1-10V) LED Outdoor Drivers are specifically designed to deliver reliable performance and protection while meeting the strict performance, approbation and application requirements

## Features

- Proven robustness and reliable electronic driver design
- Achieving highest efficiencies based on advance technology
- Long lifetime, 50K hours@Tc max
- Extreme compact size, fitting with varied and critical luminaires
- Suitable for Class I isolated luminaires
- BIS certified

## Benefits

- Robust design, capable of withstanding harsh outdoor conditions
- Long lifetime and high survival rate
- Superior thermal management suitable for outdoor application
- Consistent waterproof performance through the lifecycle
- Component integration in advanced IC enables cost effective design
- Proven robustness and reliability secure the lowest luminaire maintenance over time
- Extreme compact size, fitting with varied luminaires
- Easy to design-in based on the good thermal management and extra EMI margin

## Applications

- Road and street lighting
- Area and flood lighting
- Tunnel lighting
- High bay lighting



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 75W 0.7A 1-10V INT-Y	38-75W	700mA	43 - 107V	0-10V Dim	0.95	≤ 10%	4 KV	80°C	168 X 59.1 X 38	929001420306
Xitanium 75W 1.05A 0-10V INT-Y	34-75W	1050mA	32 - 72V	0-10V Dim	> 0.95	≤ 10%	4 KV	80°C	168 X 59.1 X 38	929000725113
Xitanium 75W 1.5A 0-10V INT -Y	37.5 - 75W	1500mA	25 - 50V	0-10V Dim	> 0.95	≤ 10%	4 KV	80°C	168 X 59.1 X 38	929000752413
Xitanium 150W 0.7A 0-10V INTELLIVOLT	45- 150W	700mA	60 - 210V	0-10V Dim	> 0.9	≤ 20%	4 KV	80°C	240.5 X 59.1 X 37.1	913710844102
Xitanium 150W 1.05A 140V 0-10V 120-277V	46 -150W	1050mA	44 - 140V	0-10V Dim	> 0.95	≤ 10%	4KV	80°C	240.5 X 59.1 X 37.6	929000722913
Xitanium 150W 1.5A 0-10V 120-277V - F	45 -150W	1500mA	30 - 100V	0-10V Dim	> 0.95	≤ 10%	4KV	80°C	240.5 X 59.1 X 37.6	929000745813
Xitanium 220W .7A 0-10V 240V	147 - 220W	700mA	210 - 315V	0-10V Dim	> 0.95	≤ 10%	4 KV	80°C	209.5 X 80 X 37.4	929001420406
Xitanium 250W 0.7A 1-10V Dimming	125 -250W	700mA	178 - 357V	0-10V Dim	> 0.95	≤ 10%	4 KV	80°C	240.5 X 89.4 X 42	929000838508

# Xitanium Single Current

Outdoor

LED-based light sources are an excellent solution for outdoor environment. They are long-lasting and require low maintenance. However, to get the best out of the LEDs, these light sources require highly reliable and efficient LED Drivers. The new Philips Xitanium fixed output LED outdoor drivers are specifically designed to deliver reliable performance and protection while meeting the strict performance, approbation and application requirements.

## Features

- Proven robustness and reliable electronic driver design
- Achieving highest efficiencies based on advance technology
- Long lifetime, 50K hours@Tc life
- Extreme compact size, fitting with varied and critical luminaires
- Suitable for Class I isolated luminaires
- BIS certified

## Benefits

- Robust design, capable of withstanding harsh outdoor conditions
- Long lifetime and high survival rate
- Superior thermal management suitable for outdoor application
- Consistent waterproof performance through the lifecycle
- Component integration in advanced IC enables cost effective design
- Proven robustness and reliability secure the lowest luminaire maintenance over time
- Extreme compact size, fitting with varied luminaires
- Easy to design-in based on the good thermal management and extra EMI margin

## Applications

- Road and street lighting
- Area and flood lighting
- Tunnel lighting
- High bay lighting



## Product specifications





Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (L X W X Ht)	Ordering Code
Xitanium 12W 0.7A 18V	9 - 12W	700mA	12 - 18V	Non dimmable	0.95	≤10%	4 KV	75°C	92 X 54 X 32	929001507014
Xitanium 20W 0.7A 28V	17 - 20W	700mA	24 - 28V	Non dimmable	0.95	≤10%	4 KV	75°C	92 X 54 X 32	929001507114
Xitanium 36W 0.7A 52V	28 - 36W	700mA	40 - 52V	Non dimmable	0.95	≤10%	4 KV	75°C	92 X 54 X 32	929001507214
Xitanium 50W 0.7A Outdoor	25 - 50W	700mA	36 - 75V	Non dimmable	0.95	≤10%	4 KV	85°C	104.4 x 68.4 x 32	929001407406
Xitanium 20W 1.0A 20V	14 - 20W	1000mA	14 - 20V	Non dimmable	0.95	≤10%	4 KV	80°C	92 X 54 X 32	929001407506
Xitanium 36W 1.0A 36V	26 - 36W	1000mA	26 - 36V	Non dimmable	0.95	≤10%	4 KV	80°C	92 X 54 X 32	929001407606
Xitanium 75W 0.7A 240V Y	38 - 75W	700mA	43 - 107V	Non Dimmable	0.95	≤10%	4 KV	80°C	168 X 59.1 X 38	929000982314
Xitanium 75W 1.05A 240V Y	38 - 75W	1050mA	36 - 72V	Non Dimmable	≥ 0.95	≤10%	4 KV	80°C	168 X 59.1 X 38	929001406606
Xitanium 100W 0.7A 240V Y	45 - 100W	700mA	64 - 143V	Non dimmable	0.95	≤10%	4 KV	80°C	168 X 59.1 X 38	929001404806
Xitanium 150W 0.7A 240V I	45 - 150W	700mA	60 - 214V	Non dimmable	≥ 0.95	≤10%	4 KV	80°C	210 X 59.1 X 37.1	929001404906
Xitanium 150W 1.05A 240V I	46 - 150W	1050mA	44 - 140V	Non dimmable	≥ 0.95	≤10%	4KV	80°C	210 X 59.1 X 37.1	929001406706





# Indoor point drivers

## Portfolio

Indoor point drivers	Dimming	Basic features and performance	
	DALI Dim	Adjustable Output Current (AOC)	Driver lifetime (hours)
 <b>Statement</b>	Yes	Yes	50,000
 <b>Performance</b>	No	Yes	50,000
 <b>Core</b>	No	No	50,000
 <b>Entry</b>	No	No	30,000





# Xitanium Programmable

Point

Our Xitanium programmable window LED drivers ensure OEMs have complete flexibility and control in producing high quality luminaires. Available in application dedicated form factors, our LED point drivers provide further customization via wide operating windows. Additionally, almost all drivers feature the following specifications: SELV, temperature derating, hot wiring, providing OEMs the tools to produce, and even alter later if necessary, premium downlights and spotlights.

## Features

- DALI dimmable
- Output current can be adjusted via the Philips MultiOne
- +/-5% output current tolerance
- Power range from 10W to 75W
- 50,000 hours lifetime
- BIS certified

## Benefits

- Drivers designed based on Philips experience and knowledge in conventional fluorescent and HID technologies
- High reliability
- Future-proof flexibility: application-oriented operating windows enable LED generation and complexity management
- Compatibility: can also be used for other manufacturers' modules or OEM's own PCB designs
- Authorized certificate: ENEC, CB, CE, CCC, RCM

## Applications

- Downlight
- Track light
- Spotlight



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
XITAXitanium 20W LH 0.15-0.5A 48V TD/Is 230V	6 - 20W	150 - 500mA	19 - 48V	DALI / Touch Dim	≥ 0.9	≤ 20%	1 KV	90°C	150 X 46 X 32	929000904006
Xitanium 25W LH 0.3 - 1.0A 36V TD/Is 230V	5 - 26W	300 - 1000mA	18 - 36V	DALI / Touch Dim	0.9	≤ 20%	1 KV	90°C	150 X 46 X 32	929000863703
Xitanium 36W LH 0.3-1A 48V TD/I 230V	11-37W	300 - 1000mA	24-48V	DALI / Touch Dim	≥ 0.9	≤ 20%	1 KV	80°C	190 X 46 X 32	929000870806

# Xitanium Adjustable Output Current

Point

Our Xitanium programmable window LED drivers ensure OEMs have complete flexibility and control in producing high quality luminaires. Available in application dedicated form factors, our LED point drivers provide further customization via wide operating windows. Additionally, almost all drivers feature the following specifications: SELV, temperature derating, hot wiring, providing OEMs the tools to produce, and even alter later if necessary, premium downlights and spotlights.

## Features

- Adjustable output current via SimpleSet
- +/-5% output current tolerance
- Low ripple current  $\leq 4\%$
- 50,000 hours lifetime
- BIS certified

## Benefits

- Drivers designed based on Philips experience and knowledge in conventional fluorescent and HID technologies
- High reliability.
- Future-proof flexibility: application-oriented operating windows enable LED generation and complexity management
- Compatibility: can also be used for other manufacturers' modules or OEM's own PCB designs
- Authorized certificate: ENEC, CB, CE, CCC, RCM\*

## Applications

- Downlight
- Track light
- Spotlight



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LxWxHt) mm	Ordering Code
*LED Driver 25W 0.3-1A 36V 230V	7 - 26W	300 - 1000mA	18 - 36V	Non dimmable	> 0.9	$\leq 30\%$	1 KV	75°C	104 x 68 x 32	929000884908
Xitanium 36W 0.3-1A 48V 240V P2	14-36W	300- 1000mA	24 - 48V	Non dimmable	0.9	$\leq 10\%$	1.5 KV	75°C	104.4 x 68.4 x 32	929001508814
Xitanium 50W 0.7-1.5A 44V P2	14-50W	700 -1500mA	18-44V	Non dimmable	0.9	$\leq 10\%$	1.5 KV	75°C	104.4 x 68.4 x 32	929000953206
*LED Driver 36W 0.3-1A 48V I 230V (Strain relief)	14 - 37W	300- 1000mA	24 - 48V	Non dimmable	> 0.9	$\leq 30\%$	1 KV	75°C	125.5 x 67.8 x 32	929000892506
*LED Driver 50W 0.7-1.5A 44V 230V (Strain relief)	14 - 50W	700 - 1500mA	18-44V	Non dimmable	> 0.9	$\leq 30\%$	1 KV	75°C	125.5 x 67.8 x 32	929000892606

# Xitanium Single Current

Point

This range provides an affordable selection of point drivers which have 50,000 hours lifetime. The driver specially addresses the flickering issues by low ripple current, making this ideal for camera operation.

## Features

- Small, compact dimensions
- Specific, optimized output current and voltage
- 50,000 hours lifetime
- Fast Time to Market
- BIS certified

## Benefits

- Drivers designed based on Philips experience and knowledge in conventional fluorescent and HID technologies
- Various power wattage drivers that are related to the lumen packages/ applications
- Independent version housing design for stand-alone installations
- Resolve flickering issue in certain applications

## Applications

- Downlight
- Track light
- Spotlight
- Panel light



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 50W 1.2A 44V	22 - 50W	1200mA	18-44V	Non dimmable	0.95	≤ 10%	1.8 KV	75°C	104.4 x 68.4 x 32	929001417506
XITANIUM 40W 1A 240V	30 - 40W	1000mA	30 - 42V	Non dimmable	> 0.95	≤ 10%	2 KV	80°C	92 X 54 X 32	929001422406



# CertaDrive Single Current

Point

These fixed current drivers offer an easy to use solution for essential spot, downlight and panel light applications. The CertaDrive range is designed to meet the market needs for basic lighting. They are therefore ideal for high volume applications and can be used with different type LED light engines. These driver are optimized for Chip On Board (COB) LED technology and are available in a variety of wattages.

## Features

- High reliability
- Luminaire design flexibility to keep stable/constant
- Lumen output and light quality levels
- Fast Time to Market
- One supplier for professional general lighting LED Drivers
- Affordable LED Drivers
- +/- 10% output current tolerance
- 30,000 hours life time
- BIS certified

## Benefits

- Drivers designed based on Philips experience and knowledge in conventional fluorescent and HID technologies
- Various power wattage drivers that are related to the lumen packages/ applications
- Fixed output drivers
- Independent version housing design for stand-alone installations

## Applications

- Downlight
- Track light
- Spotlight



## Product specifications





Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LxWxH) mm	Ordering Code
CertaDrive 6W 150mA 240V	6W	150mA	27 - 40V	Non dimmable	≥ 0.5	≤ 160%	2.0 KV	75°C	55 X 28 X 21	929001418006
CertaDrive 8W 200mA 240V	8W	200mA	28 - 40V	Non dimmable	≥ 0.8	≤ 55%	2.0 KV	65°C	80 X 40 X 22	929001413606
CertaDrive 10W 250mA 240V	10W	250mA	28 - 40V	Non dimmable	≥ 0.8	≤ 55%	2.0 KV	75°C	80 X 40 X 22	929001413806
CertaDrive 3W 300mA 240V	3W	300mA	3-10V	Non dimmable	≥ 0.5	≤ 170%	2.0 KV	75°C	55 X 28 X 21	929001418106
CertaDrive 4W 300mA 240V	4W	300mA	9-14V	Non dimmable	≥ 0.5	≤ 150%	2.0 KV	65°C	80 X 40 X 22	929001413506
CertaDrive 8W 300mA 240V	8W	300mA	16 -27V	Non dimmable	≥ 0.8	≤ 55%	2.0 KV	65°C	80 X 40 X 22	929001413706
CertaDrive 12W 300mA 240V	12W	300mA	28 - 40V	Non dimmable	≥ 0.85	≤ 60%	2.0 KV	75°C	80 X 40 X 22	929000959414
CertaDrive 18W 300 mA 240V	18W	300mA	52 - 60V	Non dimmable	≥ 0.85	≤ 60%	2.0 KV	75°C	80 X 40 X 22	929001413406
CertaDrive 5W 350mA 240V	5W	350mA	9 -15V	Non dimmable	≥ 0.8	≤ 60%	1.7 KV	70°C	80 X 40 X 22	929000832414
CertaDrive 9W 350mA 240V	9W	350mA	15 - 30V	Non dimmable	≥ 0.8	≤ 60%	1.7 KV	70°C	80 X 40 X 22	929000845514
CertaDrive 12W 350 mA 240V	12W	350mA	28 - 40V	Non dimmable	0.9	≤ 10%	1.7 KV	75°C	92 X 44 X 33	929000910514
CertaDrive 20W 350mA 240V	20W	350mA	40 - 60V	Non dimmable	0.9	≤ 10%	1.7 KV	75°C	92 X 44 X 33	929000910614
CertaDrive 15W 400mA 240V	15W	400mA	28-40V	Non dimmable	≥ 0.92	≤ 10%	1.7 KV	75°C	129 X 40 X 32	929000877214
CertaDrive 7W 430mA 240V	5.5W	430mA	12 - 15V	Non dimmable	0.8	≤ 60%	2.0 KV	65°C	80 X 40 X 22	929000956414
CertaDrive 10W 430mA 240V	8W	430mA	15 -18V	Non dimmable	0.8	≤ 60%	2.0 KV	65°C	80 X 40 X 22	929000956514
CertaDrive 14W 430mA 240V	12W	430mA	20 -33V	Non dimmable	0.8	≤ 60%	2.0 KV	65°C	80 X 40 X 22	929000982414
CertaDrive 20W 500mA 40V	20W	500mA	27 - 40V	Non dimmable	0.95	≤ 10%	2.0 KV	75°C	92 X 44 X 33	929001505514
CertaDrive 10W 700mA 240V	10W	700mA	9 - 15V	Non dimmable	≥ 0.8	≤ 60%	1.7 KV	70°C	80 X 40 X 22	929000832514
CertaDrive 12W 700mA 240V	12W	700mA	12 - 20V	Non dimmable	≥ 0.94	≤ 10%	1.7 KV	75°C	129 X 40 X 32	929000864583
CertaDrive 18W 700mA 240V	18W	700mA	18 - 27V	Non dimmable	≥ 0.94	≤ 10%	1.7 KV	75°C	92 X 44 X 33	929000977014
CertaDrive 25W 700mA 240V	25W	700mA	28 - 39V	Non dimmable	≥ 0.94	≤ 10%	1.7 KV	75°C	129 X 40 X 32	929000877114
CertaDrive 20W 800mA 240V	20W	800mA	20 - 30V	Non dimmable	≥ 0.94	≤ 10%	1.7 KV	75°C	129 X 40 X 32	919315415433



# Indoor linear drivers

Xitanium and CertaDrive LED drivers make up a complete portfolio of LED drivers to support project and high volume trade LED luminaires businesses.

## Portfolio

Indoor linear drivers	Dimming		Basic features and performances		
	DALI Dim	1-10V	SimpleSet	Adjustable Output Current (AOC)	Driver lifetime (hours)
 <b>Statement</b>	Yes	No	Yes	Yes	100,000
 <b>Performance</b>	No	Yes	Yes	Yes	100,000
 <b>Core</b>	No	No	No	No	50,000
 <b>Entry</b>	No	No	No	No	30,000-50,000





# Xitanium Programmable

Linear

Xitanium LED drivers are designed to operate LED solutions for professional general lighting applications, with non-isolated and isolated drivers to support HV and LV linear systems. Flexibility in luminaire design is assured thanks to an adjustable output current. Application-oriented operating windows offer the flexibility required to provide the stable lumen output and light quality levels that lighting specifiers and architects demand. Reliability is enhanced by specific features that protect the connected LED module, e.g. hot wiring, reduced ripple current and thermal de-rating. With Xitanium programmable indoor linear drivers, it supports light point management and is programmable for all your needs.

## Features

- DALI dimming and programmable
- Isolated (low voltage) and non-isolated (high voltage) versions available
- Operating windows – output current can be adjusted via SimpleSet and the Philips MultiOne Configurator (for all TD drivers) or with a resistor outside the driver
- Reduced ripple current and thermal de-rating for increased reliability
- iXt LED-drivers have a Longer life time (100khrs), improved surge and burst (4kV) and Tambient (-40°C to +60°C) specifications
- Central DC operation supported
- BIS certified

## Benefits

- High voltage systems for up to 95% high efficiency, lowest cost and smallest dimensions
- Low voltage systems involve simpler approbation process and ease of design-in
- High reliability.
- Future-proof flexibility – application-oriented operating windows enable LED generation and complexity management
- Compatibility – adjustable output current enables operation of various LED solutions from different manufacturers or OEM own designs
- Low ripple for camera and scanner friendly operation
- More robust LED drivers for industry applications
- Flicker and noise free dimming with all Touch and DALI LED drivers due to amplitude dimming (AM)

## Applications

- Office
- Retail
- Public buildings (airports, cinemas, theatres, exhibition halls), distribution centers and shopping malls



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 36W 0.12-0.40A 110V TD 230V	10 – 36W	120-400mA	50 – 110V	DALI/Touch Dim	0.9	≤ 20%	1 KV	75°C	360 X 30 X 22	929000852203
Xitanium 75W 0.12-0.4A 215V TD 230V	21 – 75W	120-400mA	100 – 215V	DALI/Touch Dim	0.9	≤ 20%	1 KV	75°C	360 X 30 X 22	929000852103
Xitanium 75W 0.7 – 2A 54V TD 230V	21 – 75W	0.7 – 2A	27 – 54V	DALI/Touch Dim	0.9	≤ 20%	1 KV	75°C	424 X 30 X 25.7	929000870403
Xitanium 150W 0.2 – 0.7A 300V TD 230V iXt	43 – 150W	0.2 – 0.7A	150 – 300V	DALI/Touch Dim	0.9	≤ 20%	2 KV	75°C	360 X 30 X 21	929000893306

# Xitanium Adjustable Output Current

Linear

Xitanium LED drivers are designed to operate LED solutions for professional general lighting applications, with non-isolated and isolated drivers to support HV and LV linear systems. With Xitanium LED drivers, flexibility in luminaire design is assured thanks to an adjustable output current. Application-oriented operating windows offer the flexibility required to provide the stable lumen output and light quality levels that lighting specifiers and architects demand. Reliability is enhanced by specific features that protect the connected LED module, e.g. hot wiring, reduced ripple current and thermal de-rating.

## Features

- Multiple versions – 1-10V dimmable and fixed output, non-isolated and isolated available
- Adjustable output current via a resistor outside the driver or SimpleSet tools
- Reduced ripple current and thermal de-rating for increased reliability
- iXt LED-drivers have a Longer life time (100khrs), improved surge and burst (4kV) and Tambient (-40°C to +60°C) specifications
- Central DC operation supported
- BIS certified

## Benefits

- High voltage systems for up to 95% high efficiency, lowest cost and smallest dimensions
- Low voltage systems involve simpler approbation process and ease of design-in
- High reliability.
- Future-proof flexibility – application-oriented operating windows enable LED generation and complexity management
- Compatibility – adjustable output current enables operation of various LED solutions from different manufacturers or OEM own designs
- Low ripple for camera and scanner friendly operation

## Applications

- Office
- Retail
- Public buildings (airports, cinemas, theatres, exhibition halls), distribution centers and shopping malls



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt) mm	Ordering Code
Xitanium 36W 0.12-0.4A 115V 230V (LEDset)	10 – 36W	120-400mA	50 – 115V	Non dimmable	0.9	≤ 20%	1 kV	75°C	280 X 30 X 21	929000950606
Xitanium 36W 0.12-0.4A 115V 1-10V 230V (LEDset)	10 – 36W	120-400mA	50 – 115V	1-10V	0.9	≤ 20%	1 kV	75°C	280 X 30 X 21	929000953606
Xitanium 75W 0.12-0.4A 220V 230V (LEDset)	21 – 75W	120-400mA	100 – 220V	Non dimmable	0.9	≤ 20%	1 kV	75°C	280 X 30 X 21	929000950706
Xitanium 75W 0.12-0.4A 220V 1-10V 230V (LEDset)	21 – 75W	120-400mA	100 – 220V	1-10V	0.9	≤ 20%	1 kV	75°C	280 X 30 X 21	929000953706

# Xitanium Single Current

Linear

Xitanium LED drivers with single current output offer industry leading performance and reliability at optimized cost. They are ideal for high volume applications where performance specification is key. These drivers guarantee OEM makers Xitanium performance and Philips reliability but with standard current settings.

## Features

- Low output current tolerance
- High efficiency
- Small dimensions
- Specific current and voltage
- 50,000 hours lifetime
- BIS certified

## Benefits

- High voltage systems for highest efficiency and lowest cost
- Easy design-in with specific output current settings
- Low profile drivers enabling greater luminaire design freedom
- Good light quality

## Applications

- Office
- Industry
- Retail
- Public buildings (airports, cinemas, theatres, exhibition halls), distribution centers and shopping malls



## Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimension (LXWXHt)	Ordering Code
Xitanium 20W 280mA 72V	20W	280mA	60 - 72V	Non dimmable	0.9	≤ 10%	3 KV	70°C	182 X 30 X 21	929000953006
Xitanium 40W 280mA 142V	40W	280mA	120 - 142V	Non dimmable	0.95	≤ 10%	3 KV	75°C	265 X 30 X 21	929000953106
Xitanium 36W 1A 240V ML 1	36W	1000mA	21 - 36V	Non dimmable	0.95	≤ 10%	3 KV	75°C	210 X 40 X 29	929001508914





# LED Transformer





# Mainstream

## LED Transformer

Economic range LED Transformer range are designed to replace switching power supply (non lighting standard product) in matching constant voltage LED Strips in indoor application, therefore upgrade total lighting quality.

### Features

- High frequency
- Compact size
- SELV compliant
- Safety protections including overload protection and short circuit protection
- Lifetime 30,000 hours
- BIS certified

### Benefits

- Optimal performance thanks to the dedicated LED solution
- Safe operation
- Installation friendly, Class II

### Applications

- Hotel, Partially light the space, Living rooms, Corridors
- Retail & Shopping Mall, Cabinet or shelf lighting
- Restaurant, Enhance the ambience, create the mood
- Decoration, Create space and layers, light sculpture



### Product specifications

Description	Output Power	Output Current	Output Voltage	Dimming	PF (at Full Load)	THD	Surge	Tc (Max)	Housing Dimesion (LXWXHt)	Ordering Code
LED Transformer 60W 24VDC	60W	2.5A	24V	Non dimmable	0.95	----		85°C	180mmx42mmx30mm	913710032266
LED Transformer 120W 24VDC	120W	5A	24V	Non dimmable	0.95	----		85°C	300mmx42mmx30mm	913710032566
LED Transformer 24W 2A 12VDC	24W	2A	12V	Non dimmable	0.8	----		65°C	92mmX44mmX33mm	929001417306
LED Transformer 60W 5A 12VDC	60W	5A	12V	Non dimmable	0.8	----		65°C	211mmX40mmX30mm	929001417406
ET-E 10 (Transformer /AC to AC Converter)	2.5 – 10W	550–900mA	12V AC	Non dimmable	0.95	≤ 20%	1.5 KV	65°C	80mmX40mmX22mm	913712911566





# MultiOne configurator

The demands from customers for flexibility and diversity are fast increasing in multi-folds. This is the reason why Philips has introduced simplified tools which allow you to easily configure your drivers for ease of use.

The universal Philips MultiOne configurator is a tool you can use with any Philips programmable driver and configure the functions in your lighting solutions for any application. It has become a must-have in all applications where the lighting system needs to match specific requirements.

## Features

- For use with all Philips LED, fluorescent and HID programmable drivers
- Suitable for standard Windows computers with USB connection
- Different interfaces depending on the installation
- Enables optimization of installation, last minute changes, easy diagnostics and maintenance

## Benefits

- One tool for all Philips configurable drivers, both for conventional and LED systems
- Flexibility for OEM providing access to the features built into the driver
- Optimized for use in the production process
- Unique tool that combines configuration with diagnostics

## Applications

- General lighting
- Retail lighting
- Outdoor lighting
- Office lighting

## The MultiOne configurator consists of two building blocks

### 1 MultiOne Interface tool



#### LCN8600/00 MultiOne Interface USB2DALI

The interface that can be used with the MultiOne PC software to commission, configure, diagnose drivers via the DALI interface.



#### LCN9610 or LCN9620 MultiOne SimpleSet Interface

The tools can be used with the MultiOne PC software to configure drivers wirelessly using SimpleSet® Technology.

#### Product specifications

Product type	Order code
	<b>12NC</b>
LCN8600/00 MultiOne interface USB2DALI	9137 003 46703
LCN8650/10 MultiOne interface USB2ZigBee	9137 003 59203
LCN 9610 MultiOne interface SimpleSet®	9290 009 99400
LCN 9620 MultiOne interface SimpleSet®	9290 009 99500

### 2 MultiOne Software

#### Supporting MultiOne Software

to be installed on a PC, laptop or production work station.

#### System requirements:

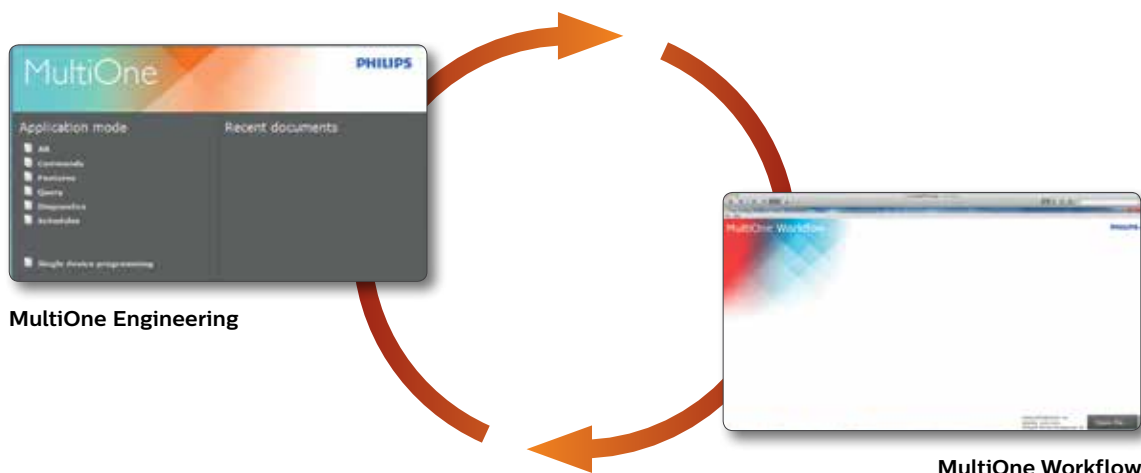
- Windows PC or laptop
- Microsoft windows 7, 8.0, 8.1 (support of Windows XP will stop in end 2015)
- USB 2.0 ports (Two free ports preferred)
- Min 35 MB of free disk space
- Microsoft .NET Framework 3.5 SP1

## Free download

Find out more about MultiOne software via [www.philips.com/multiOne](http://www.philips.com/multiOne)

# Philips MultiOne configurator

All programmable Outdoor, Indoor (Linear and Point) LED systems can be configured with the MultiOne configurator. Also all existing programmable conventional Philips systems, HID and FLUO can be configured with the same tool. Using the unique tool along with the installation of the software makes flexibility comes alive, providing you with access to all featured built in within the driver.



**The MultiOne configurator software** is free and downloadable from our website. It consists of:

## 1. MultiOne Engineering

Specially developed to access all functionalities of the driver; to configure, diagnose and prepare the configuration file for the production environment.

Also includes:

- DALI commands, scheduler
- SimpleSet®

## 2. MultiOne Workflow

Developed to configure all devices or subassemblies in the production environment in a simple and quick way.

Depending on the type of driver, a combination of features can be configured. With these features, one can create diversity (e.g. Adjustable light output and Adjustable output current), but also extra security (e.g. Module temperature protection and DC emergency), including costdown improvements (e.g. Constant light output, Dynadimmer and Corridor mode).

Detailed explanations of each feature and how to configure, are available in the instruction manual on our website.

[www.philips.com/MultiOne](http://www.philips.com/MultiOne)

### Configurable device features

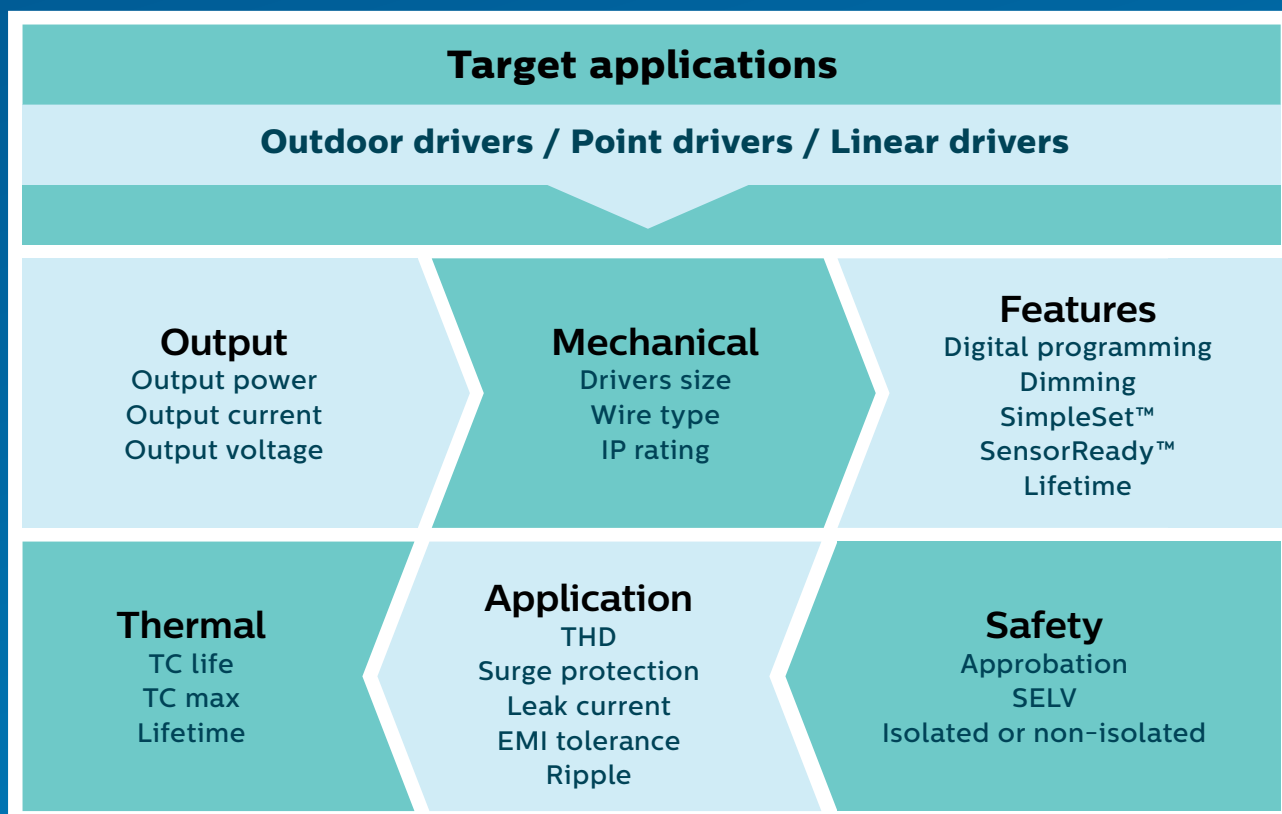
- Active cooling
- Module temperature protection
- DC emergency
- End of life indication
- Light source operating hours
- Energy meter
- Lamp burn-in
- Lamp selection
- Quick lamp start
- Adjustable output current
- Adjustable light output
- Adjustable startup time
- Constant light output
- Constant light output Lite
- Dimming interface
- 1-10 V dim level
- AmpDim
- LumiStep
- LineSwitch
- Touch and dim
- Min dim level
- Dynadimmer
- Dynadimmer Lite
- Corridor mode





# LED drivers selection pointers

Different drivers cater to different needs and the right drivers can help ensure optimal performance of your LED light engine. Use the following chart to help you pick the perfect drivers to match your intended use.



[illegible]



## Notes

[illegible]



