



LEDs in general lighting... with Fortimo now you can...

Philips Fortimo LED DLM system – a LED breakthrough
in energy efficiency and higher lumen packages.

April 2010

PHILIPS
sense and simplicity

Fortimo LED DLM benefits

- High energy efficiency, up to 90 Lm/W
Wide range of lumen packages from 1100 to 3000Lm
- Consistent colour between modules and over lifetime
- High quality white LED light with CRI 80
Choice of 3000K or 4000K modules
- Fixed module form factor and fixed lumen packages
- Choice of LED drivers with built-in intelligence which recognises and drives any Fortimo LED DLM module.
- Easy heat sink and reflector mounting
- Wide choice of Fortimo specific reflectors available, with high efficacies*
- Choice of specific Fortimo LED DLM heat sinks available*
- Globally released product with CE and ENEC approval.

*see www.philips.com/fortimo for links to the following:
Reflectors for Fortimo modules: Alux Luxar, ACL, Jordan reflectors
Heat sinks for Fortimo modules: Nuventix, AVC

Applications

General lighting in:

- Offices (representative areas such as receptions, boardrooms, restaurants etc.)
- Public buildings (cinemas, theatres, swimming pools, exhibition halls)
- Hotel lobbies and receptions
- Retail (high end shops, supermarkets bakery/ butcher areas, leather goods etc.)
- Urban outdoor lighting (ground lighting, post top lanterns).

Fortimo LED DLM modules and drivers are intended to be built in to luminaires by luminaire manufacturers.



April 2010

New efficacy upgrade

What is new in the Fortimo LED DLM range?

- New higher energy efficiency levels DLM systems.
- New longer lifetime!
- New – choice of drivers for the Fortimo LED DLM 1100Lm.
- New price levels available!
- New – Fortimo LED DLM 3000Lm system. Coming soon.
- **New** - 5 year guarantee on Fortimo LED DLM modules and drivers.

LEDs for general lighting

New Fortimo LED DLM energy efficiency levels

The Fortimo LED DLM module is equipped with a special remote phosphor technology, enabling very high levels of LED efficacy. With the availability of a second driver range for the Fortimo LED DLM 1100Lm family,

Philips will now communicate energy efficiency in terms of module efficacy, as well as system (module and driver) efficacy.

Future proof modules

As energy efficacy advances in LEDs are made and new bins become available, these will be

incorporated in to the Fortimo LED Modules, offering constant higher efficacies, without changing the dimensions, shape or lumen output of the system.

A really future proofed approach to enable luminaire manufacturers to plan and design new luminaire ranges for the coming years.

Fortimo LED DLM range of Drivers

Philips now offers two ranges of drivers for the Fortimo LED DLM modules.

1. Fortimo LED 1100-2000Lm range of drivers. Besides fixed output drivers for attachment to the luminaire, Philips also offers the following range.



Fortimo LED DLM Independent driver, which is designed to be mounted at a distance from the luminaire, thereby offering flexibility and compact luminaire design and ease of installation.



Fortimo LED DLM TD dimmable driver, based on the Touch & DALI protocol and, therefore, suitable for use with all DALI based lighting control systems, such as Philips OccuPlus.



Fortimo LED DLM TD/I dimmable, independent driver, which offers Touch and DALI dimming, with the driver placed at a distance to the luminaire. the luminaire can be fitted at the last moment.

New

All Fortimo LED 1100-2000Lm drivers will have a 12v output for connection of active cooling heat sink systems by end of May 2010.



2. New range of Philips Xitanium drivers

Philips has designed a new range of Xitanium drivers for Indoor lighting, which are light weight, sleekly designed, efficient and come in fixed output or dimming versions. The Xitanium 25w 300-700mA driver is an excellent choice for the new Fortimo LED DLM 1100Lm Generation 2 modules, available from April 2010.

Luminaire manufacturers now have a choice of drivers as follows:



Typical Fortimo applications

*available from August 2010

Fortimo LED DLM 1100Lm Gen2 modules (from April 2010)	Xitanium 25w 300-700mA driver or Fortimo LED 1100-2000 driver range
Fortimo LED DLM 1100Lm 18&19w modules	Fortimo LED 1100-2000 driver range
Fortimo LED DLM 2000Lm modules	Fortimo LED 1100-2000 driver range
Fortimo LED DLM 3000Lm modules*	Fortimo LED 1100-3000 driver range

European specifications after 100 hrs (April 2010 - October 2010)

With Philips Xitanium 25w driver	Power (W)	Light output (lm)	Module efficacy (lm/W)	System efficiency (lm/W)	Input voltage (V)	CCT (K)	CRI Ra (R _s)	Lm Maintenance (50k hrs)	Class	Power Factor	Tc life LED Module (C)	Tc life LED driver (C)
Fortimo LED DLM 1100Lm 840 Gen2	16	1100	90	77	220-240	4000	80	70%	II	>0.90	65	90
Fortimo LED DLM 1100Lm 830 Gen2	17	1100	81	70	220-240	3000	80	70%	II	>0.90	65	90

With Fortimo 1100-2000Lm driver	Power (W)	Light output (lm)	Module efficacy (lm/W)	System efficiency (lm/W)	Input voltage (V)	CCT (K)	CRI Ra (R _s)	Lm Maintenance (50k hrs)	Class	Power Factor	Tc life LED Module (C)	Tc life LED driver (C)
Fortimo LED DLM 1100Lm 840 Gen2	17	1100	90	75	220-240	4000	80	70%	I	>0.90	65	65
Fortimo LED DLM 1100Lm 830 Gen2	19	1100	81	67	220-240	3000	80	70%	I	>0.90	65	65
Fortimo LED DLM 2000Lm 840 Gen2	32	2000	79	70	220-240	4000	80	70%	I	>0.90	65	65
Fortimo LED DLM 2000Lm 830 Gen2	36	2000	70	62	220-240	3000	80	70%	I	>0.90	65	65

Fortimo ordering data, for a complete system, a module, cable and driver are needed.

Fortimo LED DLM 1100Lm and 2000Lm modules only	EOC codes	I2NC codes
Fortimo LED DLM 1100/840 Gen2 LED Module only	8727900 868357 00	9290 004 84403
Fortimo LED DLM 1100/830 Gen2 LED Module only	8727900 868371 00	9290 004 84603
Fortimo LED DLM 2000/840 Gen2 LED Module only	8727900 868364 00	9290 004 84503
Fortimo LED DLM 2000/830 Gen2 LED Module only	8727900 868388 00	9290 004 84703

Fortimo LED DLM, drivers (all are suitable for either 1100Lm or 2000Lm modules)	EOC codes	I2NC codes
Fortimo LED DLM 1100-2000 Fixed output driver only	8727900 801774 00	9290 004 62903
Fortimo LED DLM 1100-2000/TD (Dimmable driver)	8727900 842975 00	9290 004 65003
Fortimo LED DLM 1100-2000/I (Independent, fixed output driver)	8727900 825220 00	9290 004 65103
Fortimo LED DLM 1100-2000 TD/I (Independent, dimmable driver)	8727900 862706 00	9290 004 65203

Philips Xitanium drivers (for Fortimo LED DLM 1100 & Fortimo LED SLM 1100Lm modules)	EOC codes	I2NC codes
Xitanium 25w 0.3 - 0.7A 36V, Independent 230V	872790090096500	9290 006 00203
Xitanium 25w 0.3 - 0.7A 36V, TE/I 230V (trailing edge dimming)	872790090730800	9290 006 00303
Xitanium 25w 0.3 - 1.0A 36V, TD/Independent 230V (Touch and DALI dimming)		9290 006 00403
Xitanium 25w 0.3-1A 36V TD/Is 230V (dimming, without 12v connector)		9290 004 85803

Fortimo LED DLM cables	EOC codes	I2NC codes
Fortimo LED DLM LED Cable fixed output/dimmable (25 cm)	8727900 807097 00	9290 004 63103
Fortimo LED DLM LED Cable, for Independent driver (60 cm)	8727900 850529 00	9290 004 78903

*LED technology is continuously improving. **For latest updates see Fortimo LED DLM Design-In guide on www.philips.com/fortimo



For more information, visit:
www.philips.com/fortimo
www.philips.com/OEM

©2010 Koninklijke Philips Electronics N.V.

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent- or other industrial or intellectual property rights.

Date of release: 04/10 / UK - 3222 635 67271
Printed in the Netherlands