



CL1203/1205/1207/1209/1211W/C-2.1

DC Compact Fluorescent Lamps



- 12V DC Operation
- Extremely high illumination efficiency
- Extremely high number of switching cycles
- Over-Temperature Protection (OTP)
- Standard socket available

Phocos' CFL lamps provide very high illumination levels at low power consumption. This high quality 12V DC lamp can be used directly in 12V battery or solar systems. The life span of the lamp is more than 8,000 hours. The new version of CFL lamps is now regulated by a DC-preheating circuit which makes an extremely high number of switching cycles possible (IEC925).

Furthermore the lamps are equipped with an over-temperature protection (OTP) which causes the lamps to automatically switch off prior to overheating (especially when operated at too extreme environmental conditions) and therefore prevents damage to the lamp. Thus, the product life span is significantly increased.

It is an excellent choice for any illumination purpose which requires more than 100 lumens.

As the lamps are produced in our own factory, we can provide customized versions on request.

TYPE	CL1203C/W-2.1	CL1205C/W-2.1	CL1207C/W-2.1	CL1209C/W-2.1	CL1211C/W-2.1
Voltage Range	11-15V	11-15V	11-15V	11-15V	11-15V
Nominal Power	3W	5W	7W	9W	11W
Nominal Current	240mA	400mA	560mA	720mA	900mA
Light Intensity	100lm(W) 100lm(C)	250lm(W) 250lm(C)	350lm(W) 350lm(C)	520lm(W) 520lm(C)	670lm(W) 630lm(C)
Light Temperature	2700K(W) 6400K(C)	2700K(W) 6400K(C)	2700K(W) 6400K(C)	2700K(W) 6400K(C)	2700K(W) 6400K(C)
Temp. Range	-10 to +50 °C	-10 to +50 °C	-10 to +50 °C	-10 to +50 °C	-10 to +40 °C
Socket	E27 (Edison)	E27 (Edison)	E27 (Edison)	E27 (Edison)	E27 (Edison)

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CLI215W/C, CL2415W/C, CLI230W/C Lámparas Fluorescentes Compactas DC



- Voltaje de Operación de 12 V o 24 V DC
- Eficiencia de Iluminación extremadamente alta
- Alto Número de Ciclos de Cambio
- Socket estándar disponible



CL

Las lámparas CFL de Phocos con un consumo de energía de 15 W y 30 W abren un nuevo rango de equipamiento de iluminación de 12 V y 24 V.

El tiempo de vida de la lámpara supera las 10 000 horas. Un circuito electrónico especial, garantiza un gran número de ciclos de encendido y apagado.

Las lámparas cumplen con el estándar de la CE para baja interferencia con radios u otros equipos electrónicos.

La forma especial de los tubos de 15 W permite la instalación en lugares donde usualmente solo caben los bulbos incandescentes.

Las lámparas tienen el Socket E27/Edison estándar (El socket tipo bayoneta está disponible bajo pedido).

Tipo	CLI215W/C	CL2415W/C	CLI230W/C
Voltaje Nominal [V]	11-15	22-30	11-15
Potencia Nominal [W]	15	15	30
Corriente Nominal [mA]	1200	600	2400
Intensidad Luminosa [lm]	>750 (W) >700 (C)	>750 (W) >700 (C)	>1500 (W) >1350 (C)
Temperatura de la Luz [K]	2700 (W) 6400 (C)	2700 (W) 6400 (C)	2700 (W) 6400 (C)
Rango de Temperatura Ambiente [°C]	-10 a +50	-10 a +50	-10 a +50
Socket	E27 (Bayoneta a Pedido)	E27 (Bayoneta a Pedido)	E27 (Bayoneta a Pedido)

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Longlife DC Compact Fluorescent Lamp

LLI202W/C, LLI204W/C

- 12 V DC Operation
- Up to 3 times longer lifetime than a Standard CFL (25,000 life hrs)
- Very high illumination efficiency, more efficient than LED technology
- Very high number of switching cycles
- Standard E27/Edison socket available
- Protected glass tube withstands mechanical shocks
- Negligible heat dissipation because of extremely low power consumption



LL

Experience a totally new illumination technology: based on the innovations of backlights in LCD monitors, we now can provide a similar lamp for use in 12V DC systems.

The Longlife Compact Fluorescent Lamp comes with an incredible 3.5 times extended lifetime compared to standard CFL lamps. So the lamp lasts almost as long as LED lamps, but at much lower cost.

The number of switching cycles is comparable to our high quality CL V2 generation and reaches 50.000. Furthermore, due to the very small and fully covered tube, the lamp withstands mechanical shocks and does not get damaged if it accidentally falls down on the floor.

Due to it's very low power consumption the lamp dissipates negligible heat and thus can be installed in closed lamp shades without any danger to get overheated.

We can provide 4 models with 2 power ranges and two different color temperatures.

Try out this new Phocos innovation!

Type	LLI202W/C	LLI204W/C
Voltage range [V]	10.5 - 15	10.5 - 15
Nominal power [W]	2	4
Nominal current [mA]	170	330
Light intensity [lm]	50	120
Light temperature [K]	2,400 - 3,000 (W) 6,100 - 6,700 (C)	2,400 - 3,000 (W) 6,100 - 6,700 (C)
Ambient temp. Range [°C]	-35 to +50	-35 to +50
Socket	E27	E27

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SLI206W, SLI218W, SLI212C, SL2412C Lámparas LED para Aplicaciones Solares



Muy bajo consumo de energía

Alta eficiencia de iluminación

12 o 24 V DC

Largo tiempo de vida

Número Infinito de ciclos de cambio



SL

Las lámparas LED de Phocos, proveen altos niveles de iluminación con un muy bajo consumo de energía y largo tiempo de vida.

La lámpara de 12 V DC puede ser utilizada directamente en su sistema fotovoltaico sin ningún balasto.

El tiempo de vida esperado supera los 100 000 horas.

Lás lámparas estan disponibles en dos colores. Las mismas tienen un socket Standard E27/Edison (Sockets tipo bayoneta son disponibles a pedido).

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Tipo	SLI206W	SLI218W	SLI212C	SL2412C
Rango de Voltaje	11 - 15	11 - 15	11 - 15	22 - 30
Color	Combinado	Combinado	Blanca	Blanca
Densidad de Luz [lm]	8	24	20	20
Corriente DC [mA]	35	100	100	50
Potencia [W]	0.4	1.2	1.2	1.2