

Highly Efficient Off-line LED Driver

Primary Control System Utilizing ICLSx-Series (non-dimmable)

LED based lighting sources are the best suited candidates to replace today's inefficient solutions e.g. incandescent bulbs. Current LED driver design and system cost are still a challenge to gain major consumer acceptance. Infineon offers benchmark solutions and represent an outstanding choice to overcome this hurdle.

ICLSx-series for non-dimming applications deploys fixed frequency operation mode with integrated power factor control for off-line LED lighting applications. Applied innovative primary control techniques result in excellent system efficiencies with significant reduced external component count. The integrated CoolMOS™ simplifies designs and enables compact applications for integration in standard screw-in sockets and LED luminaires.

Less Energy – More Light @ Reduced System Cost Infineon ICLSx–series

Applications

- Lamp retrofits (e.g. incandescent bulb, GU10, PAR, tube replacements)
- LED luminaires

System Highlights

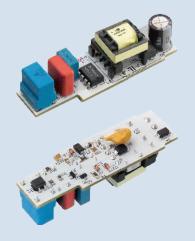
- Single stage, primary control with PFC, flyback, fixed frequency operation
- Highly efficient system efficiency up to 88%, power factor > 98%
- Dimmer safe operation
- Comprehensive feature set
- Outperforms worldwide regulatory requirements

Key Features

- Minimized external component count enables smallest form factor and maximum reliability
- Isolated driver output for efficient thermal management
- Multiple safety functions for full system protection in failure situations
- ICLSx-series enables simple and fast designs at lowest cost
- Ready to meet future more stringent requirements

LED Driver Board non-dimmable

Demo Board ICLS6021J (60W equ. /230V AC)



Evaluation Board

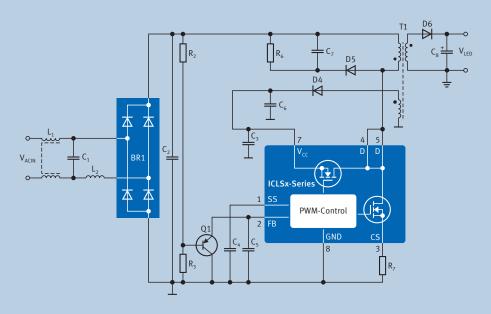
- Please contact your local Infineon office
- Documentation: www.infineon.com/LED-Bulb



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Application Circuit Diagram



Product line-up ICLSx-Series

Partnumber	V _{DS}	R _{RDSON}	Nominal Power (±15%)		Package	Order. No.
	[V]	[Ω]	230V _{VACIN}	90V _{vacin}		
ICLS6021J	650	6.45	12W	5W	PG-DIP-8	SP000869140
ICLS6022J	650	4.70	17W	9W	PG-DIP-8	SP000877356
ICLS6022G	650	4.70	17W	9W	PG-DSO-12	SP000897654
ICLS6023J	650	1.70	26W	15W	PG-DIP-8	SP000890998
ICLS8023Z	800	2.26	24W	12W	PG-DIP-7	SP000891000

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