APPLICATION BRIEF

ICL8810 for ceiling fan power supply

ICL88XX for battery charging, home appliances & lighting

ICL8810 enables cost-optimized designs with exceptional PFC and THD performance in many home appliance applications.

Infineon has developed the REF-SHA35IMD111TSYS turnkey solution for low-voltage BLDC ceiling fans, with advanced MCE 2.0 technology for excellent motor control and highly efficient power consumption.

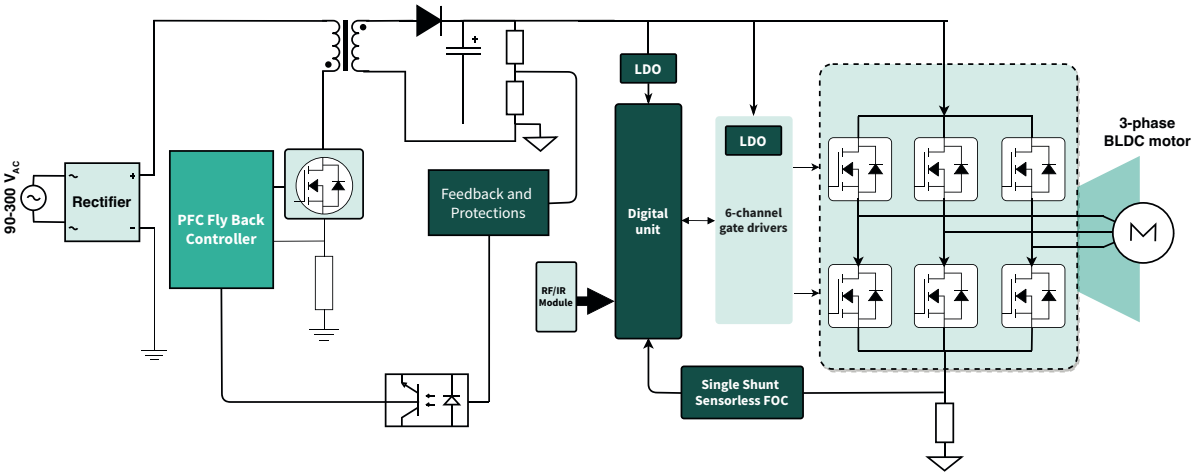
REF-SHA35IMD111TSYS: BLDC ceiling fan solution with ICL8810 and iMotion™ IMD111T-6F040

The iMOTION™ IMD111T-6F040 driver with advanced Motor Control Engine MCE 2.0 removes the need for own motor software development, reducing time-to-market with the new iMOTION™ Solution Designer (iSD).

Key features

- Power factor > 0.9
- THD < 10% across wide load range
- Constant voltage output
- Critical conduction + QR mode

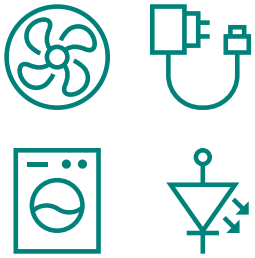
Low-voltage BLDC ceiling fan system with ICL8810 and iMotion™ IMD111T-6F040.



Another turnkey solution is currently being developed with the XMC1302 microcontroller. Stay tuned on our latest releases for motor control solutions.

About the product: ICL88xx

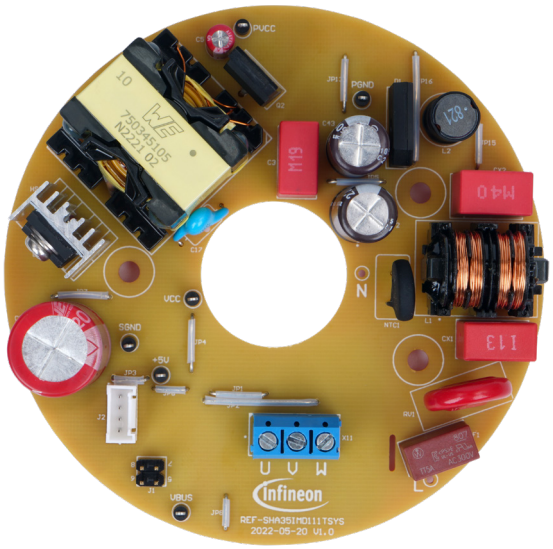
The ICL8810 is a single-stage PFC flyback controller for constant voltage output suitable for primary and secondary-side regulation. Exceptional power factor and THD performance together with integrated burst mode for stand-by power < 100 mW make the ICL8810 the best choice for battery charging and smart lighting. The ICL8800 is the most cost-effective variant without burst mode. The ICL8820 provides built-in jitter for advanced lighting applications.



ICL88XX family features

Product	OPN	Package	Burst mode	DC input jitter	Start-up control	Input OVP	Secondary-side OVP
ICL8800	ICL8800XUMA1	PG-DSO-8			✓	✓	✓
ICL8810	ICL8810XUMA1	PG-DSO-8	✓		✓	✓	✓
ICL8820	ICL8820XUMA1	PG-DSO-8	✓	✓	✓	✓	✓

REF-SHA35IMD111TSYS turnkey ceiling fan solution with ICL8810 and iMOTION™ IMD111T-6F040.



Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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Public

Document number:
B121-I1454-V1-7600-EU-EC
Date: 12/2023

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