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REF_5AR2280CZ_22W1 NEW

Overview

22 W isolated flyback auxiliary power supply for residential indoor aircon

The REF_5AR2280CZ_22W1 is an auxiliary power supply reference design configured in a flyback topology and is based on the

ICE5AR2280CZ (/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/ice5ar2280cz/)

, a product of Infineon's

5th generation fixed frequency CoolSET™ family (/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/)

The power supply supports an input range up to 264 V_{AC} with 15 V / 0.15 A, 12 V / 1.4 A and 5 V / 0.3 A output. Thanks to the integrated 800 V MOSFET and the line overvoltage protection, such a design enables the deployment to unstable grid environments and increases the robustness of the entire system.

Summary of Features

- Universal input 85~264 V_{AC}
- Output #1: 15 V / 0.15 A
- Output #2: 12 V / 1.4 A
- Output #3: 5 V / 0.3 A
- > 79% full-load efficiency @ 230 V_{AC}



Benefits

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- > [Evaluation Boards \(/cms/en/product/evaluation-boards/\)](/cms/en/product/evaluation-boards/) > [REF_5AR2280CZ_22W1](#)

- Multi-output support for IPM gate driver, relay, MCU and miscellaneous biasing needs
- Ease of design and BOM reduction with an integrated MOSFET and line overvoltage protection
- Robust operation with an integrated 800 V MOSFET and line overvoltage protection

Potential Applications

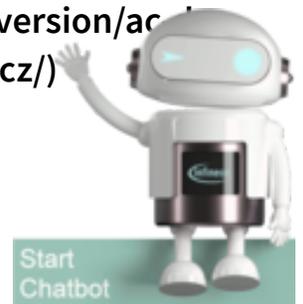
- Auxiliary power supplies for AC-DC
- **Home appliances (/cms/en/applications/consumer/home-appliances/)**
 - **Residential aircon (/cms/en/applications/consumer/home-appliances/residential-aircon/)**
- **Motor control and drives (/cms/en/applications/automotive/)**
- **Industrial drives (/cms/en/applications/industrial/industrial-drives/)**
 - **Industrial heating and welding (/cms/en/applications/industrial/industrial-heating-and-welding/)**

List of components

- Fixed frequency AC-DC integrated power stage ([CoolSET™ ICE5AR2280CZ \(/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/ice5ar2280cz/\)](/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/ice5ar2280cz/))



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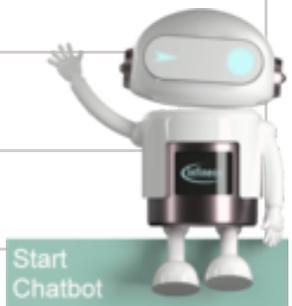
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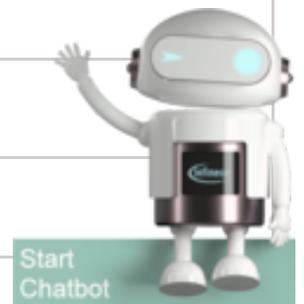


Parametrics

Parametrics	REF_5AR2280CZ_22W1
Board Type	Reference Board
Device	ICE5AR2280CZ
Dimensions	110 (L) x 57 (W) x 26 (H) mm
Family	CoolSET™



Parameters > Home (/cms/en/)	REF_5AR2280CZ_22W1 > Products (/cms/en/product/)
> Evaluation Boards (/cms/en/product/evaluation-boards/) Input Type	AC > REF_5AR2280CZ_22W1
Input Voltage min max	230 V 85 V 264 V
Input Voltage range	wide
Isolated	one non-isolated, two isolated
Output Voltage min max	15 V 14.85 V 15.15 V
P _{out} max	22 W
Product Description	22W isolated flyback auxiliary power supply with triple output (15V/0.15A, 12V/1.4A and 5V/0.3A) for home appliances
Product Name	REF_5AR2280CZ_22W1
Qualification	Industrial
Target Application	Power Supplies ; Industrial ; Consumer ; Home appliances ; SMPS
Topology	Flyback
Type	integrated



Documents

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