

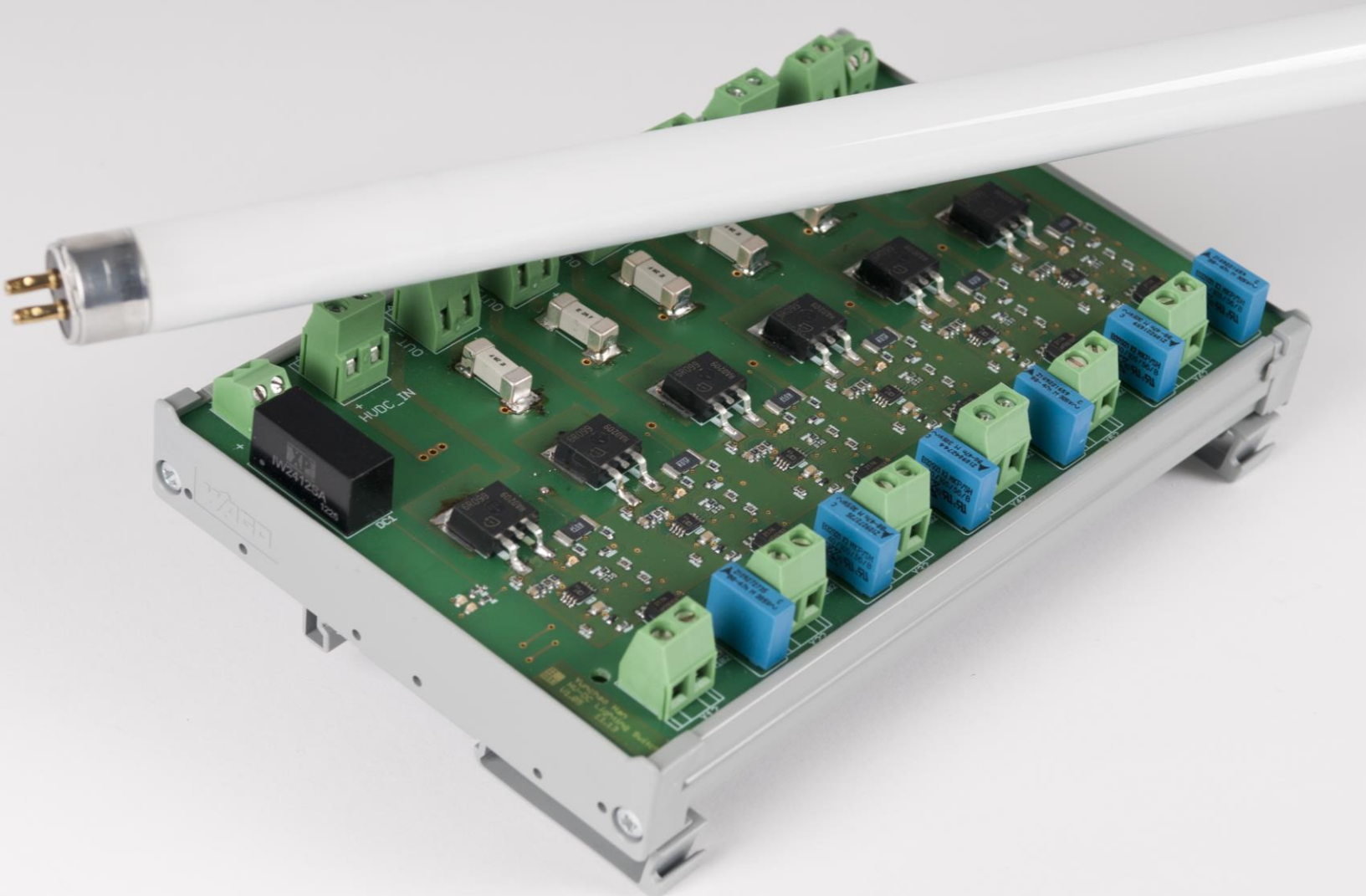


Fraunhofer

IISB

FRAUNHOFER INSTITUTE FOR INTEGRATED SYSTEMS AND DEVICE TECHNOLOGY

DC Lighting Switch Module for DC Microgrids





DC Lighting Switch Module for DC Microgrids

Description

The **DC Lighting Switch Module** from **Fraunhofer IISB** provides a cost-effective solid state multi-channel switch solution for lighting applications on local LV-DC grids (380 V). Expensive mechanical DC switches can thus be avoided.

An **integrated active inrush current limiter** allows the switching of capacitive loads like lamp ballasts for LED or fluorescent tubes. Each switch is protected against overload, over-temperature, and short circuit protected

The switches can be individually controlled from a conventional 230 V AC installation via galvanically isolated AC inputs, or via digital signals. An interface to common control buses, like KNX, CAN, etc., is available on request.

Target applications

- DC lighting installations
- General low and medium power switching applications in DC grids

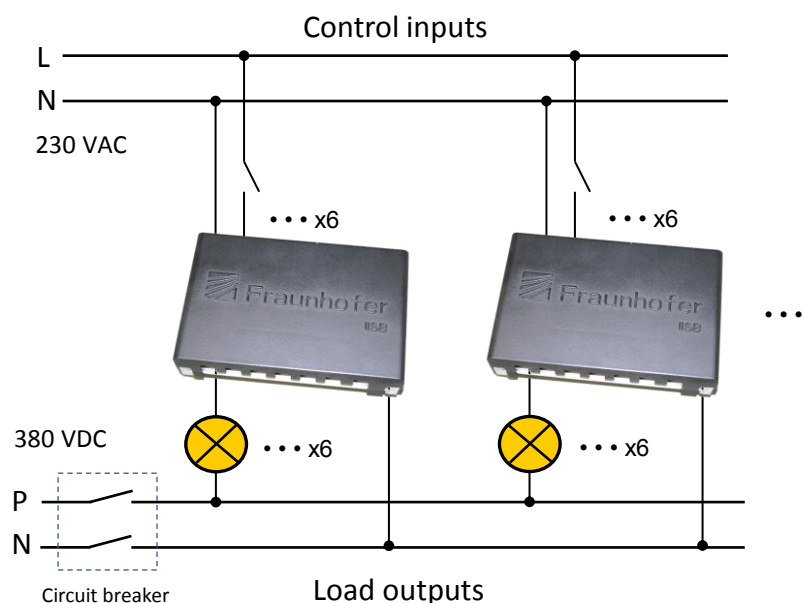
Technical Data

Number of output (switch) channels	6
Maximum current per channel	1 A
Maximum operating voltage	450 V
Minimum operating voltage	320 V
Maximum capacitive load (per channel)	100 μ F
Power loss per channel	max. 2 W
Standby power	< 0.2 W
Dimensions	100 x 160 mm ²

Features

- Long lifetime, no arcing
- Very low power dissipation due to latest power MOSFET technology
- Active inrush current limiting
- Suitable for capacitive, resistive, and inductive loads (400 W)
- Control signal: 230 V_{AC} or 5 V_{DC}
- Easy to connect with AC systems or digital control buses (e.g. KNX)
- Redundant over-temperature protection
- DC-rated fuse for each channel
- DIN-Rail installation
- Low cost

Typical Application



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