### Data Sheet EB01-FS150R12KE3G

## Basic Board for Infineon EconoPACK+ Modules FS150R12KE3G

#### Abstract

The EB01-FS150R12KE3G is a basic board to be used with six-channel driver 6SD312EI for reliable driving and safe operation of Infineon IGBT modules FS150R12KE3G.

The basic board EB01-FS150R12KE3G (with driver 6SD312EI) is fully matched to IGBT module FS150R12KE3G. Its plug-and-play capability makes it ready to operate immediately after mounting. The user needs invest no effort in designing or adjusting it to a specific application.

#### Product Highlights

- Plug-and-play solution
- ✓ Suitable for FS150R12KE3G
- ✓ No electrolytic capacitors
- ✓ Extremely reliable; long service life
- ✓ Shortens application development time

#### Applications

- ✓ Three-phase inverters
- Motor drives
- 🗸 UPS
- ✓ Power-factor correctors
- ✓ Wind-power converters
- ✓ Welding
- ✓ SMPS
- and many others

EB01-FS150R12KE3G CONCEPT

#### Basic Board Data Sheet

#### Important: Please refer to the relevant manuals!

This data sheet contains only product-specific data for the basic board. Information specific to the relevant driver can be found in the corresponding data sheet.

A detailed description, must-read application notes and general data applicable to this driver family are found in: "Description and Application Manual, Six-Channel Driver 6SD312EI for the EconoPACK+ Modules ".

#### Dimensions

Dimensions: 162 x 100 mm.

Height including driver: 21 mm (30 mm with connector X1 and flat cable).

Mounting principle: soldered onto an EconoPACK+ IGBT module FS150R12KE3G.

Absolute Maximum Ratings					
Parameter	Remarks	Min Ma	x Units		
Input power per channel	Note 1		3 W		
Switching frequency	Note 2	6	9 kHz		
DC link voltage	Note 3	80	0 V		
Operating temperature		-40 +8	5 °C		
Storage temperature		-40 +9	0°C		

All data refer to +25°C unless otherwise specified

# CONCEPT EB01-FS150R12KE3G

#### Basic Board Data Sheet

#### **Electrical Characteristics**

Short-circuit protection	Remarks	Min Typ. Max	Units	
V <sub>ce</sub> -monitoring threshold Response time	Betw. aux. terminals Note 4	3.4 10	V µs	
Gate output	Remarks	Min Typ. Max	Units	
Turn-on gate resistor $R_{g(on)}$ Turn-off gate resistor $R_{g(off)}$		8.2 10	Ω Ω	
Electrical insulation	Test conditions	Min Typ. Max	Units	
Creep path between channels		9	mm	

All data refer to +25°C unless otherwise specified

Footnotes to the key data

- 1) The input power is limited by the on-board gate resistors.
- 2) If the specified max. switching frequency is exceeded, the gate resistors may overheat.
- 3) This limit is due to active clamping. Refer to the "Description and Application Manual, Six-Channel Driver 6SD312EI for the EconoPACK+ Modules".
- 4) Pulse width of the direct output of the gate drive unit (excluding the gate-resistor delay).

#### Basic Board Data Sheet

#### Important Notice

The data contained in this product data sheet is intended exclusively for technically trained staff. Handling all high-voltage equipment involves risk to life. Strict compliance with the respective safety regulations is mandatory!

Any handling of electronic devices is subject to the general specifications for protecting electrostatic-sensitive devices according to international standard IEC 747-1, Chapter IX or European standard EN 100015 (i.e. the workplace, tools, etc. must comply with these standards). Otherwise, this product may be damaged.

#### Disclaimer

This data sheet specifies devices but cannot promise to deliver any specific characteristics. No warranty or guarantee is given – either expressly or implicitly – regarding delivery, performance or suitability.

CT-Concept Technology AG reserves the right to make modifications to its technical data and product specifications at any time without prior notice. The general terms and conditions of delivery of CT-Concept Technology AG apply.

## CONCEPT EB01-FS150R12KE3G

#### Basic Board Data Sheet

#### **Ordering Information**

The general terms and conditions of delivery of CT-Concept Technologie AG apply.

Related IGBT	CONCEPT Driver Type #
Infineon (eupec) FS150R12KE3G	6SD312EI
Connection	CONCEPT Modular Cable Type #
6SD312EI to EB01-FS150R12KE3G	MIC01A (6 items per driver)
Related IGBT	CONCEPT Basic Board Type #
Infineon (eupec) FS150R12KE3G	EB01-FS150R12KE3G

#### **Information about Other Products**

#### For drivers adapted to other high-voltage or high-power IGBT modules

Direct link: <a href="http://www.IGBT-Driver.com/go/plug-and-play">www.IGBT-Driver.com/go/plug-and-play</a>

#### For other drivers and evaluation systems

Please click: www.IGBT-Driver.com

#### © Manufacturer

CT-Concept Technologie AG Intelligent Power Electronics Renferstrasse 15 CH-2504 Biel-Bienne Switzerland

Tel. +41 - 32 - 344 47 47 Fax +41 - 32 - 344 47 40

E-mail <u>Info@IGBT-Driver.com</u> Internet <u>www.IGBT-Driver.com</u>

© Copyright 1998...2007 by CT-Concept Technologie AG - Switzerland. We reserve the right to make any technical modifications without prior notice.

All rights reserved. Version of 2016-05-20

#### IGBT-Driver.com

#### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Power Management IC Development Tools category:

Click to view products by Power Integrations manufacturer:

Other Similar products are found below :

EVAL-ADM1168LQEBZ EVB-EP5348UI MIC23451-AAAYFLEV MIC5281YMMEEV DA9063-EVAL ADP122-3.3-EVALZ ADP130-0.8-EVALZ ADP130-1.2-EVALZ ADP130-1.5-EVALZ ADP130-1.8-EVALZ ADP1712-3.3-EVALZ ADP1714-3.3-EVALZ ADP1715-3.3-EVALZ ADP1716-2.5-EVALZ ADP1740-1.5-EVALZ ADP1752-1.5-EVALZ ADP1828LC-EVALZ ADP1870-0.3-EVALZ ADP1871-0.6-EVALZ ADP1873-0.6-EVALZ ADP1874-0.3-EVALZ ADP1882-1.0-EVALZ ADP199CB-EVALZ ADP2102-1.25-EVALZ ADP1871-0.6-1.875EVALZ ADP2102-1.8-EVALZ ADP2102-2-EVALZ ADP2102-3-EVALZ ADP2102-4-EVALZ ADP2106-1.8-EVALZ ADP2147CB-110EVALZ AS3606-DB BQ24010EVM BQ24075TEVM BQ24155EVM BQ24157EVM-697 BQ24160EVM-742 BQ24296MEVM-655 BQ25010EVM BQ3055EVM NCV891330PD50GEVB ISLUSBI2CKITIZ LM2744EVAL LM2854EVAL LM3658SD-AEV/NOPB LM3658SDEV/NOPB LM3691TL-1.8EV/NOPB LM4510SDEV/NOPB LM5033SD-EVAL LP38512TS-1.8EV