

## Product Brief

# EconoPACK™ 4

The EconoPACK™ 4 package perfectly fits into the well-known Econo portfolio. EconoPACK™ 4 features a screw power terminal, providing an excellent electrical connection. The DC and AC links are separated and distinguishable at a glance for ease of use. Control pins feature our PressFIT technology for solderless assembly. A new and highly reliable ultrasonic welding process is used for all connections between the terminals and the DCBs within the module.

Optimized gate driver connection is possible by placing the driver on top of the module. Low parasitic stray inductance and optimized thermal resistance to heat sink support to excellent inverter solutions.

The EconoPACK™ 4 portfolio is available in current ratings from 100 A up to 400 A. 6-pack and half-controlled input rectifier configurations (available in 1600 V with current ratings of 240 A and 360 A) are tailor-made for industrial applications. Furthermore, 3-level single-phase solutions are available with the 650 V and 1200 V IGBT technology and current ratings of 200 A to 400 A, offering higher efficiencies, lower switching losses as well as savings in system costs.

All IGBTs and diodes support junction temperatures of  $T_{vjop} = 150^{\circ}\text{C}$  and improved power cycling capabilities.

Hence, the IGBT module family EconoPACK™ 4 helps users design powerful and compact inverters at optimized system costs. All IGBT modules are additionally equipped with an NTC for temperature measurement. This highly integrated solution is even available with integrated driver circuitry – MIPAQ™ serve and an increasing number of EconoPACK™ 4 modules is available with pre-applied TIM already.



### Key features

- > Robustness: rugged mechanical design with ultrasonic welded and injection-molded terminals
- > Easy and ultra-reliable assembly: PressFit control pins and screw power terminals for completely solderless connections
- > Efficiency: leading IGBT technologies with increased  $T_{vjop} = 150^{\circ}\text{C}$ , optimized module layout for high power densities
- > Integration: compact rectifier, 6-pack and 3-level single-phase configurations with NTC
- > Pre-applied TIM (Thermal Interface Material) for lowest thermal resistance, increased system lifetime and simplified mounting

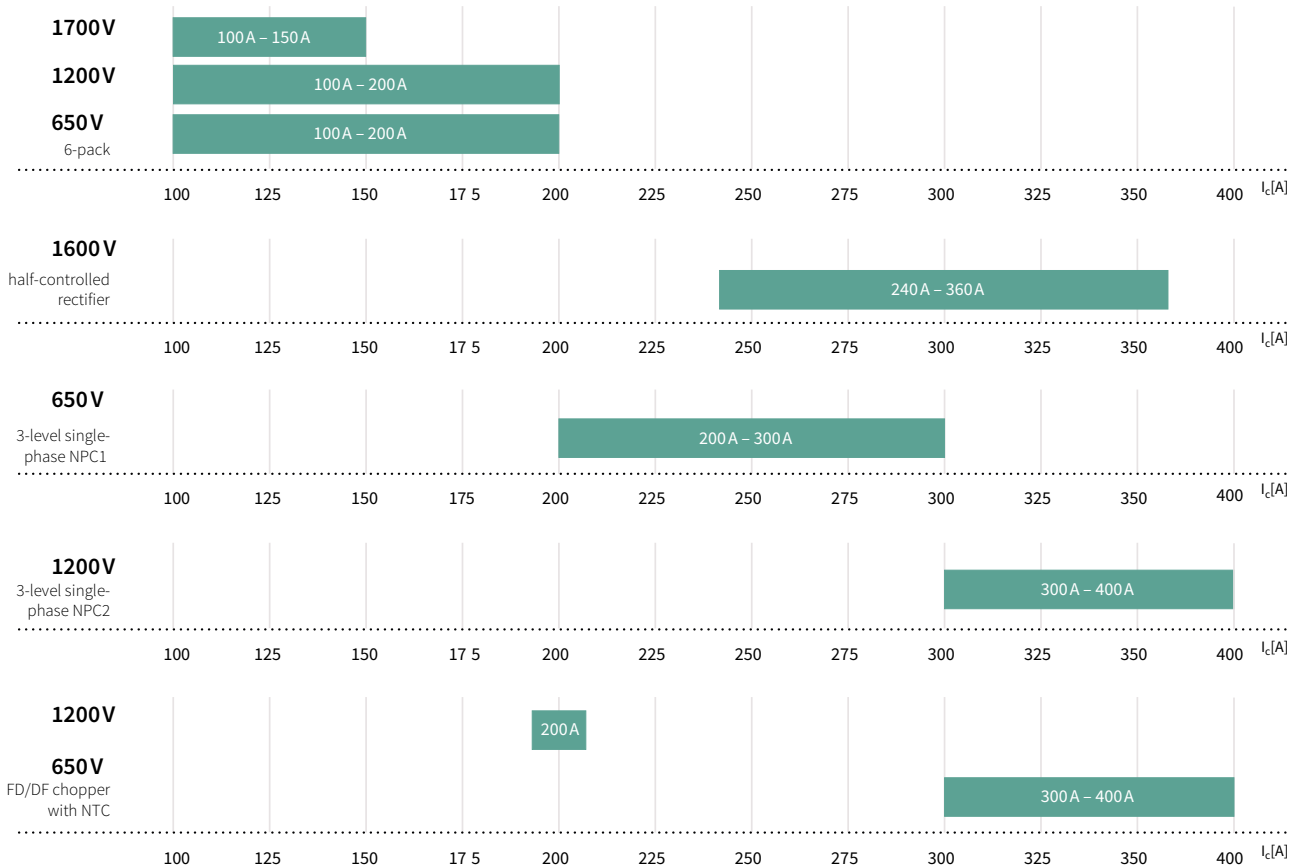
### Applications

- > General-purpose drives
- > Servo drives
- > Renewable energy systems
- > Uninterruptible power supplies
- > Air conditioning
- > And many more



# EconoPACK™ 4

## Product overview



I <sub>c</sub> [A]	6-pack			3-level		3-phase chopper		Rectifier 1600 V
	650 V	1200 V	1700 V	650 V	1200 V	650 V	1200 V	
100	FS100R07PE4	FS100R12PT4	FS100R17PE4					
150	FS150R07PE4	FS150R12PT4	FS150R17PE4					
200	FS200R07PE4	FS200R12PT4(P)		F3L200R07PE4			FD200R12PT4_B6 DF200R12PT4_B6	
240								TDB6HK240N16P
300				F3L300R07PE4(P)	F3L300R12PT4(P)_B26	FD300R07PE4_B6 DF300R07PE4_B6		
360								TDB6HK360N16P
400					F3L400R12PT4(P)_B26	FD400R07PE4R_B6 DF400R07PE4R_B6		

(P) pre-applied Thermal Interface Material (TIM) optionally available; \_B26 NPC 2 topology; R limited DC current

Published by  
Infineon Technologies AG  
85579 Neuburg, Germany

© 2016 Infineon Technologies AG.  
All Rights Reserved.

**Please note!**

THIS DOCUMENT IS FOR INFORMATION PURPOSES ONLY AND ANY INFORMATION GIVEN HEREIN SHALL IN NO EVENT BE REGARDED AS A WARRANTY, GUARANTEE OR DESCRIPTION OF ANY FUNCTIONALITY, CONDITIONS AND/OR QUALITY OF OUR PRODUCTS OR ANY SUITABILITY FOR A PARTICULAR PURPOSE. WITH REGARD TO THE TECHNICAL SPECIFICATIONS OF OUR PRODUCTS, WE KINDLY ASK YOU TO REFER TO THE RELEVANT PRODUCT DATA SHEETS PROVIDED BY US. OUR CUSTOMERS AND THEIR TECHNICAL DEPARTMENTS ARE REQUIRED TO EVALUATE THE SUITABILITY OF OUR PRODUCTS FOR THE INTENDED APPLICATION.

WE RESERVE THE RIGHT TO CHANGE THIS DOCUMENT AND/OR THE INFORMATION GIVEN HEREIN AT ANY TIME.

**Additional information**

For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office ([www.infineon.com](http://www.infineon.com)).

**Warnings**

Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.