

Product Brief

EconoDUAL™, EconoPACK™ 4, EconoPACK™ + Econo Medium-Power product family

EconoDUAL™, EconoPACK™ 4 and EconoPACK™ + meet the demand for compact inverter designs, flexibility and optimized electrical performance at the highest levels of reliability. These 17 mm-high modules have screw power terminals and are easy to assemble. 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.

All of our medium-power products are available with our established PressFIT technology for reliable, solderless mounting. They are equipped with the state-of-the-art IGBT technology supporting junction temperatures of $T_{vjop} = 150\text{ °C}$ for highest power density and leading-edge power cycling capability – ideal for inverter applications in the power range from 20 kVA up to several MVA in parallel operation.

Parallel operation is enabled by symmetrical design of the module, resulting in optimized current sharing between the IGBT half bridges. This concept allows engineers to create one inverter design for all line voltages up to 690 V_{AC} . The EconoPACK™ +, EconoDUAL™ and EconoPACK™ 4 product lines support the complete current ranges from 100 A up to 600 A at 600 V / 650 V / 1200 V / 1700 V. Furthermore, an increasing number of EconoDUAL™, EconoPACK™ + and EconoPACK™ 4 modules is available with pre-applied TIM (Thermal Interface Material).

The EconoDUAL™ 3 and EconoPACK™ 4 lines offer 3-level solutions, too. These enable highly efficient inverter designs with lower harmonic distortion, reducing the filter and other passive component requirements.



Key features

- > Compact modules with only 17 mm height
- > Easy and ultra-reliable assembly: PressFIT control pins and screw power terminals for completely solderless connections
- > Easy separation of DC and AC links
- > No plugs or cables required
- > Optimized thermal resistance to heat sink
- > Ideal for low-inductive system designs
- > Highest power density for compact inverter designs
- > Pre-applied TIM (Thermal Interface Material) for lowest thermal resistance, increased system lifetime and simplified mounting

Applications

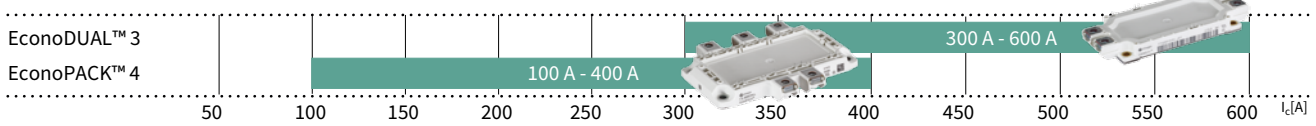
- > Drives
- > CAV
- > Renewable energy systems
- > Transmission & Distribution
- > Uninterruptible power supplies
- > Welding
- > Inductive heating
- > Medical



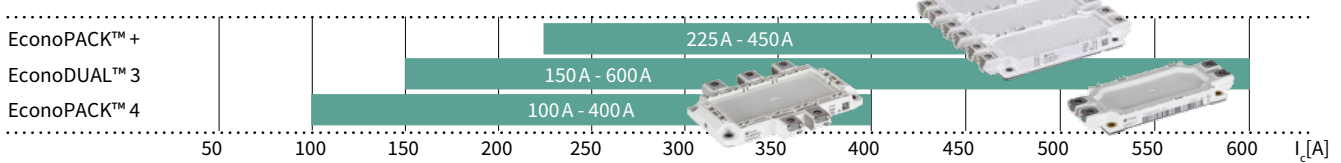
Advanced Medium Power

Product overview

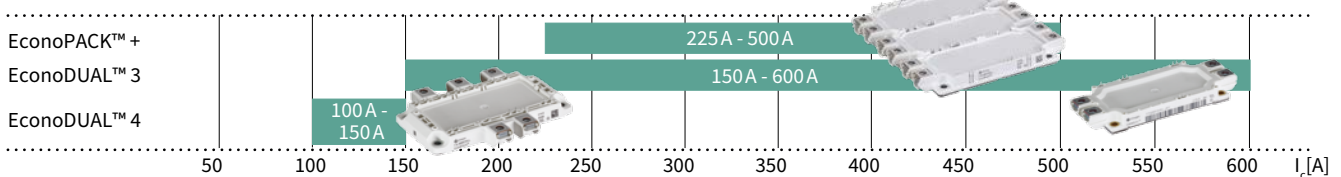
600V / 650V Medium Power Portfolio



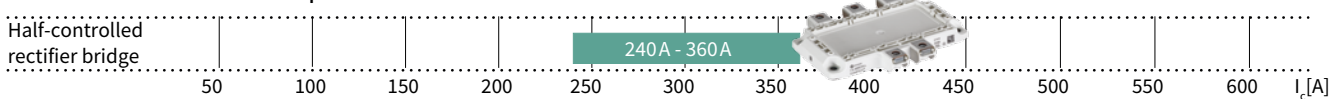
1200V Medium Power Portfolio



1700V Medium Power Portfolio



1600V Half-Controlled Input Rectifier



Available configurations

Infinion shortcut	Description	Circuit
FF	Dual	EconoDUAL™ 3
FS	6-pack	EconoPACK™ 4, EconoPACK™ +
TDB	Half-controlled input rectifier	eupec™, EconoBRIDGE™ 4
F4	4-pack	EconoDUAL™ 3

Infinion shortcut	Description	Circuit
FD/DF	Chopper with NTC	EconoPACK™ 4, EconoDUAL™
F3L	3-level one-phase NPC2 topology	EconoPACK™ 4
F3L	3-level one-phase NPC1 topology	EconoPACK™ 4, EconoDUAL™ 3

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