



brückenbauer GmbH

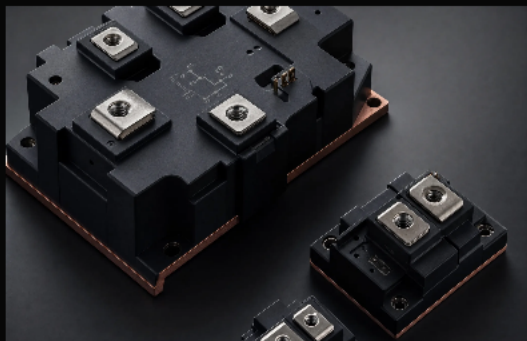
Power Electronics Portfolio

2026

Premium electronic component portfolio for industrial innovation.
Carefully selected technologies from trusted global partners.

Four power families define the portfolio core.

The source portfolio centers on semiconductor switching and regulated conversion. This structure gives buyers a clean path from operating conditions to component family.



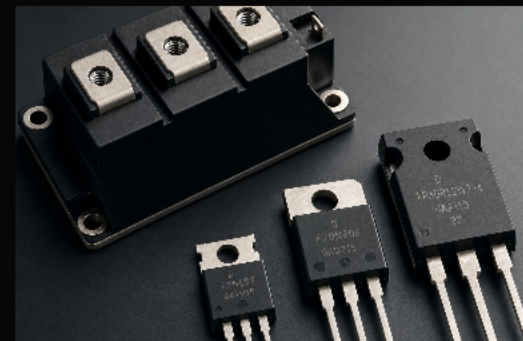
IGBT

High-current bridge and module platforms



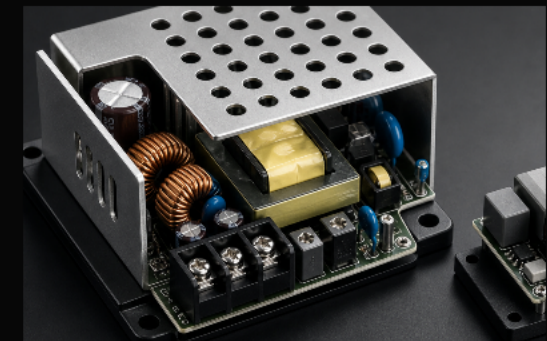
SiC MOSFET

High-efficiency switching for compact power designs



MOSFET

Discrete, module and diode options for scalable circuits



Converters

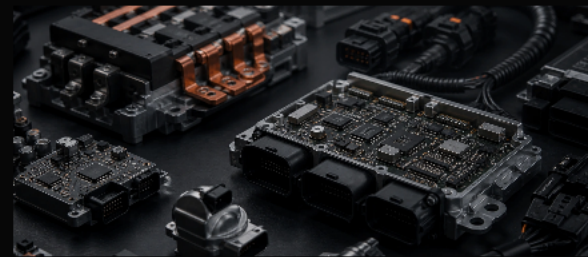
AC/DC and DC/DC power supply platforms

Power electronics serves demanding environments.

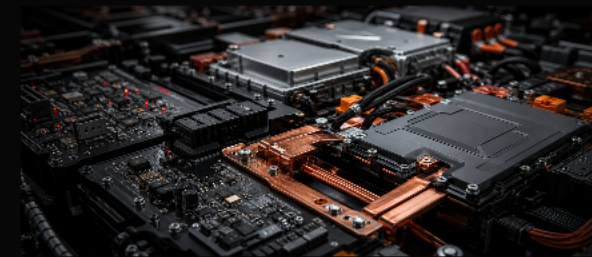
The source document maps power management into aerospace, industrial, automotive, medical, building, HVAC and renewable energy contexts.



Industrial
automation



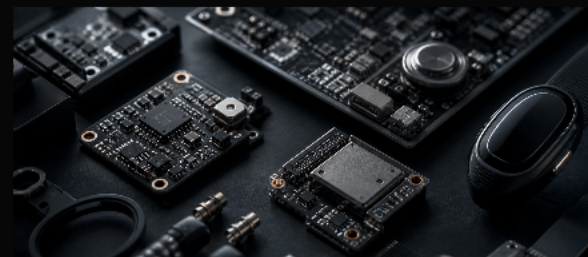
Automotive
and transport



Renewable
energy



Grid
infrastructure



Medical
systems



Aerospace
and defense

IGBT modules support high-current bridge applications.

IGBT families cover 650 V and 1200 V classes with current ratings from 10 A to 600 A, where density, reliability and controlled losses matter.

Performance parameters

Voltage classes	650 V and 1200 V
Current ratings	10 A to 600 A
Power loss	Low switching losses for efficiency
Reliability	Materials selected for service life

Target applications

Industrial drives / Automotive / Renewable energy / Home appliances



Key fit

Half bridge

3-phase bridge

SiC module routes

SiC MOSFETs enable smaller, faster and cooler designs.

Silicon carbide options reduce conduction and switching losses, making them useful where thermal performance and high-frequency operation drive the design.

Performance parameters

On-resistance	Lower conduction losses
Switching frequency	Supports smaller and lighter designs
Breakdown voltage	Safe operation under demanding loads
Temperature	Suitable for harsh operating conditions

Target applications

E-mobility / Industrial automation / Renewable energy / Power electronics



Key fit

Half bridge

Power diode

3-phase routes

MOSFETs keep low and medium power switching scalable.

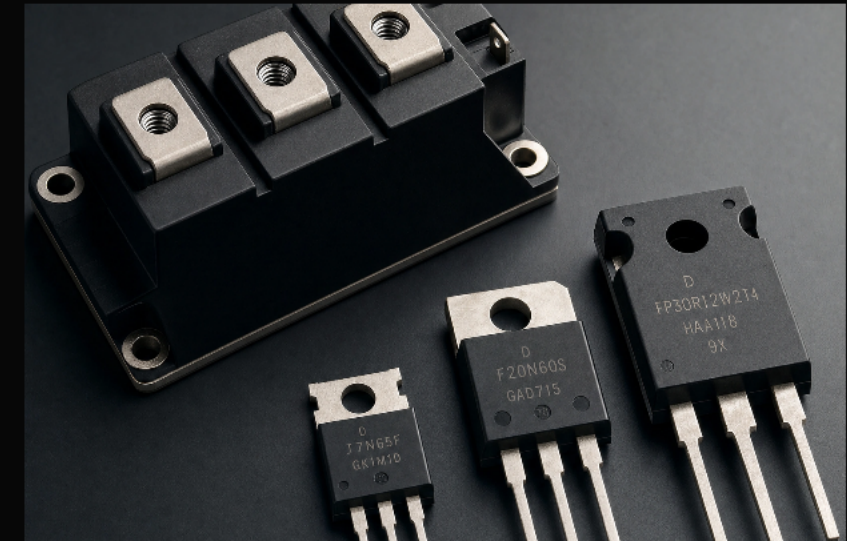
Discrete, bare-die, module and diode options support fast switching, low drive power and efficient operation across compact power circuits.

Performance parameters

Voltage range	20 V to 45 V discrete options
Packages	TO-220, TO-252 and model-specific formats
Bare-die range	30 V to 45 V
Design fit	Compact layouts for constrained assemblies

Target applications

Drive technology / Welding / Wind turbines / Photovoltaic systems



Key fit

Rectifiers

MOSFET modules

Power diodes

Converters translate stable power into usable system behavior.

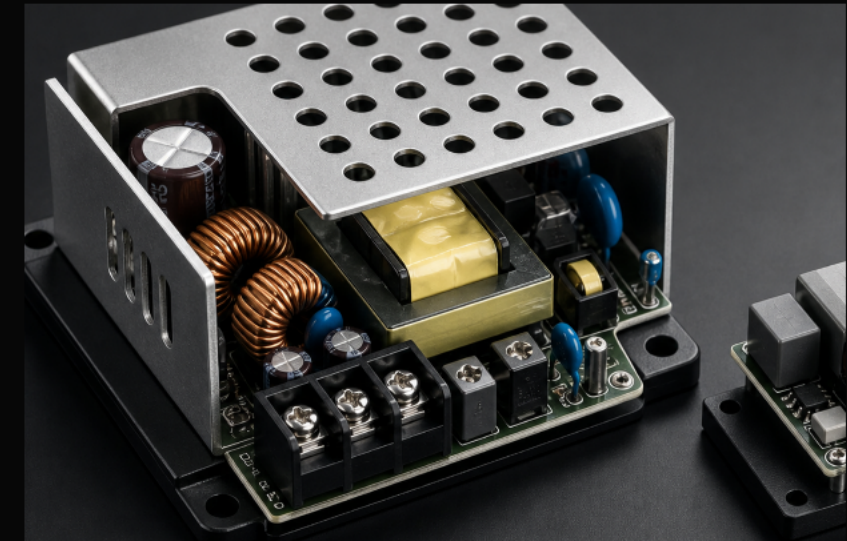
AC/DC, DC/DC, power supply and plug-converter platforms are selected around output accuracy, efficiency, ripple, overload and short-circuit protection.

Performance parameters

Output accuracy	Stable output across input and load range
Efficiency	High energy conversion efficiency
Ripple and noise	Low-noise output for sensitive loads
Protection	Short-circuit and overload handling

Target applications

PV energy storage / Railway / Industrial control / Medical / LED lighting



Key fit

AC/DC

DC/DC

Power supply

Plug converters

The right family depends on the operating envelope.

Instead of forcing a part too early, the portfolio should first qualify voltage, current, frequency, thermal behavior, package constraints and compliance requirements.

High current bridge

IGBT

Industrial drives, renewable energy, home appliances

High frequency and temperature

SiC MOSFET

E-mobility, compact conversion, demanding thermal environments

Low to medium power switching

MOSFET

Drives, welding, photovoltaics, general power electronics

Regulated supply and protection

Converters

Railway, ICT, medical, LED and energy storage systems

Qualification needs technical, compliance and lifecycle evidence.

The source document references IEC, JEDEC, UL and EMC test frameworks. Brueckenbauer can keep those checks connected to sourcing, sample planning and long-term availability.

Electrical envelope

Voltage class, current rating, losses and switching behavior.

Thermal reliability

Operating temperature, thermal cycling and package behavior.

Compliance fit

IEC 60747, JEDEC, UL 62368 and EMC expectations where applicable.

Lifecycle planning

Availability, alternates, samples and obsolescence risk before commitment.



Qualified suppliers expand sourcing options.

Brückenbauer works with a network of qualified specialist manufacturers covering power modules, semiconductors, converters, cooling solutions and related power electronics. Our value lies in identifying the most suitable sourcing route for each technical and commercial requirement.

AIPUPOWER

Source-listed partner

GeneSiC

Source-listed partner

CLNF

Source-listed partner

Mitsubishi Electric

Source-listed partner

alfatec

Source-listed partner

Yuan Dean

Source-listed partner

Silvermicro

Source-listed partner

SemiQ

Source-listed partner

TECHSEM

Source-listed partner

FANSO

Source-listed partner

Move from operating conditions to a qualified RFQ.

Our portfolio is organized into a customer-focused structure that simplifies technical evaluation, product selection, and RFQ preparation.

- 01 Define voltage, current and switching profile
- 02 Choose the most likely component family
- 03 Check package, thermal and compliance constraints
- 04 Prepare RFQ, samples and alternate routes





Power portfolio review starts with the application.

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