LAND

APPLICATION GUIDE

Compact and efficient energy conversion

Seamlessly integrate any asset in your energy management system with the iE Convert range

DEIF Improve Tomorrow

Contents

Are you ready to connect the dots?

Across the world, the energy transition is well underway. Large fossil-fuelled power plants are being replaced with renewables, energy storage, and decentralised power generation. And heat pumps, EVs, and other devices are changing the ways we generate, consume, and store energy.

Succeeding at this transition is no simple matter. With more renewables and storage, with more consumers by the hour, and with assets using different voltages, frequencies, and current types, energy management is getting more complex.

To succeed, we need to overcome those differences and connect the dots – and this is exactly what the DEIF iE Convert range helps you do.

From hybrid energy systems to hydrogen production, fuel cells, and double-conversion UPS systems, our iE Convert range helps you integrate any energy asset with best-in-class efficiency, great flexibility, and a very compact footprint – and it is closely integrated with our energy management controllers and other devices. This means you can design a reliable and scalable solution for new plants or existing ones, at any scale, working with just one supplier. And with our vast range of features and integrations, you can customise your solution to your exact requirements and seamlessl integrate it in any system.

We help you connect the dots so you can reap efficiency benefits, reduce carbon emissions, and keep the energy transition rolling. This application guide shows you how.

What is the iE Convert range?

Electricity from any source for any purpose in any energy system

The DEIF iE Convert range is a high-efficiency power conversion system (PCS) that handles a wide range of conversion tasks. You can use iE Convert devices as inverters, rectifiers, frequency converters, buck/boost converters, and transformers to convert electricity from any source for any purpose in any energy system.

Compact and efficient

The compact iE Convert range delivers high efficiency because it is based on silicon carbide (SiC) semiconductor MOSFET technology instead of silicon IGBTs. This gives the iE Convert range switching frequencies up to 75kHz which significantly improves power density and provides the ability to withstand much higher temperatures than comparable silicon IGBT designs.

Wide capacity range

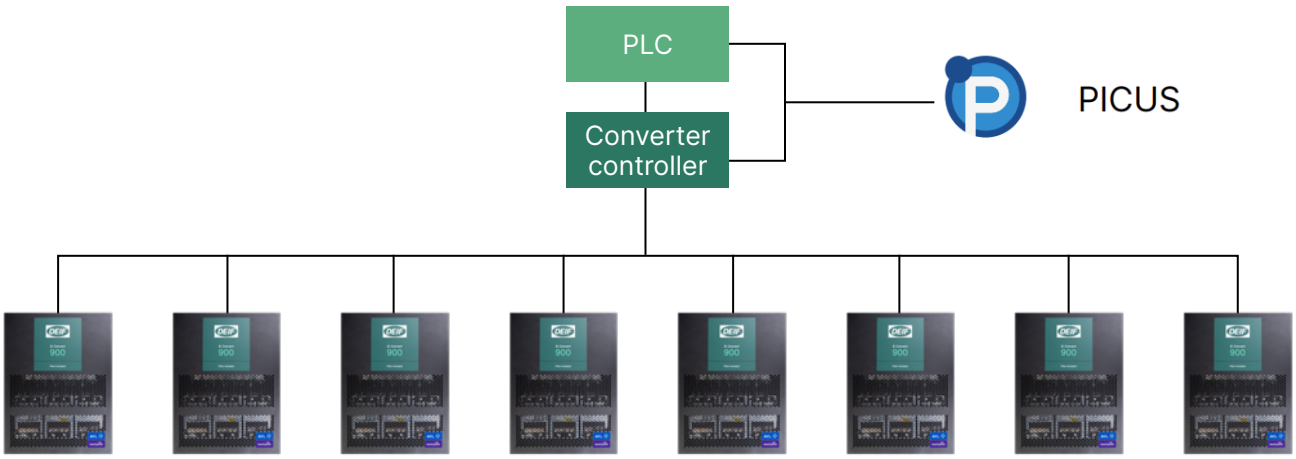
With the iE Convert, you can cover any capacity requirement from 100 kVA to 6 MVA: You can combine up to eight iE Convert devices of the same size to get the performance you need. They are bi-directional, giving you great flexibility in your applications, and each device comes as a complete, low-noise, liquid-cooled module that you can quickly integrate in your energy management solution.

Built-in filters and galvanic isolation

All iE Convert modules are delivered with the necessary filters built in so additional filters will only rarely be necessary. In addition, you can specify iE Convert DC//DC converters with built-in galvanic isolation. These devices prevent asset or busbar errors from interrupting overall power control, making them ideal for improving safety in applications such as fuel cell systems.

3 quick iE Convert facts
→ Efficiency: 99%
→ Noise: <60dB at 1m
→ Power density: 4-5kW/l

For more specs, approvals, and certifications →



Product name	Variants	Capacity (KVA)	Size (H*L*W)cm			Volum (Liters)	Weight (kg)
iE Convert 125	AC/DC, DC/AC, DC/DC, Drive	125	26.5 (12)*	14.5 (48)*	61 (48)*	23.5 (27.6)*	40
iE Convert 500	AC/DC, DC/AC, DC/DC, Drive	500	92	70	25	161	150
iE Convert 900	AC/DC, DC/AC, DC/DC, Drive	900	92	70	35	225	200
iE Convert 60	DC//DC with galvanic isolation	60	49.5 (39.7)**	26 (26.9)**	55 (67.2)**	67.5 (71.8)**	60
iE Convert 500	DC//DC with galvanic isolation	500	127	70	25	222	200

* Based on new for factor, which is work in progress

** With connectors

Silicon carbide (SiC) is ...

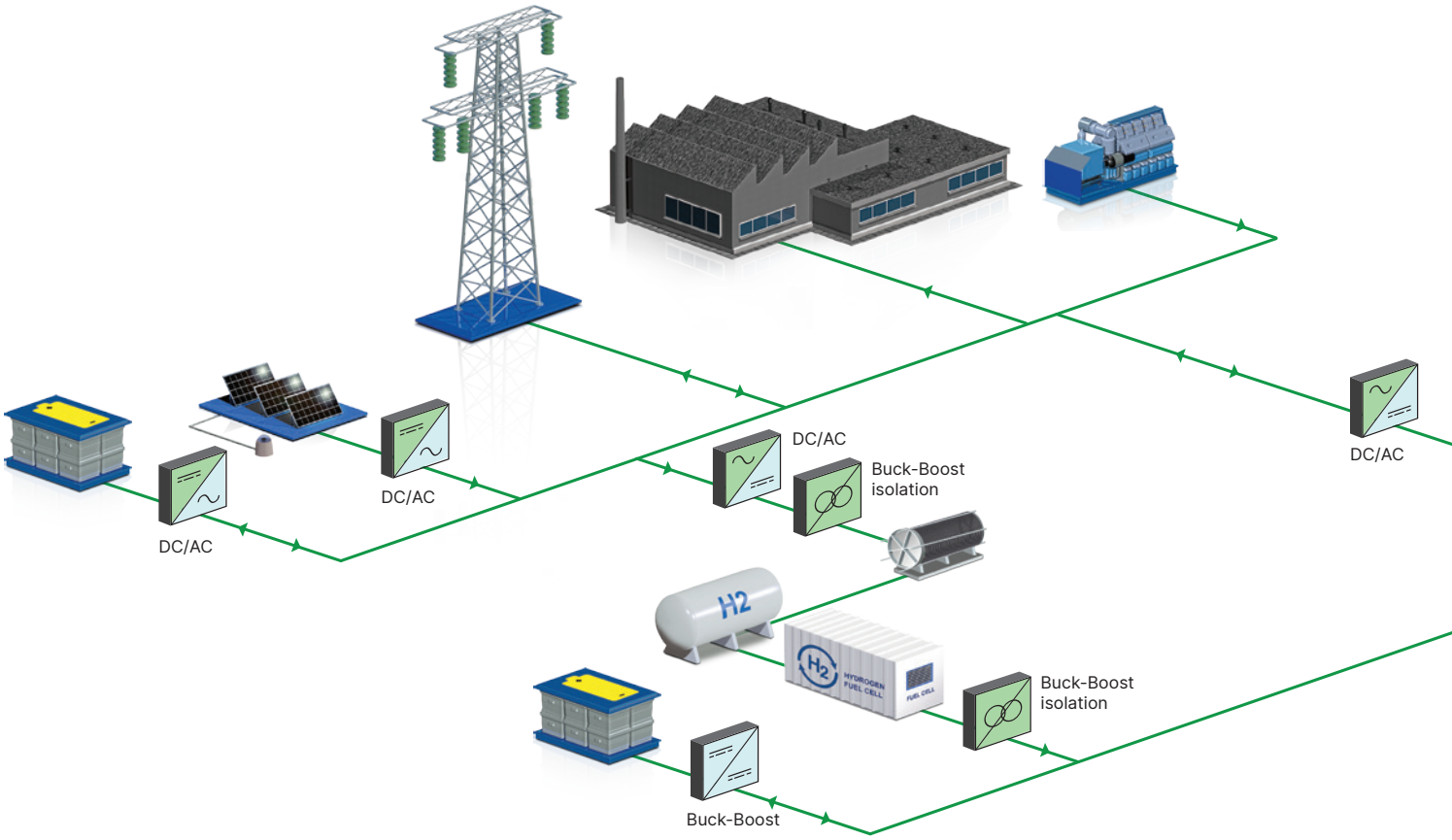
... a chemical compound which contains silicon and carbon. When used as a semiconductor, it can enable fast switching and reduce switching losses.

Combining the best with the best

The iE Convert range combines the technology, manufacturing, and application expertise of DEIF and our partners AVL (a world-leading mobility technology company) and Wolfspeed (a market leader in the worldwide adoption of silicon carbide technologies).

Key benefits of the iE Convert range

Helping you overcome key challenges in electrification



EFFICIENT

You get maximum efficiency at system level

iE Convert devices achieve high switching frequencies that transform electricity very efficiently with little energy lost as heat. You can achieve this high efficiency at different load levels and maximise output, minimise cooling, and drive down energy consumption.

FLEXIBLE

You can design solutions that work anywhere

The flexible iE Convert range is ideal for any EMS solution: It works with a wide range of voltages and frequencies. It produces less than 60dB of noise at 1 metre and will operate from -20 to +70 degrees Celsius so you can install it anywhere. And its modular design lets you expand your solution rather than replacing it as your systems grow.

COMPACT

You can save space and weight

The high energy density of an iE Convert gives you space for more power. You get 60% more space in your switchboard, and a weight of only 30 to 40%, compared to a typical IGBT design. You will rarely need external filters to condition output energy – all of which is great news when your solution needs to fit in a confined space.

SAFE

You can protect your solutions and users

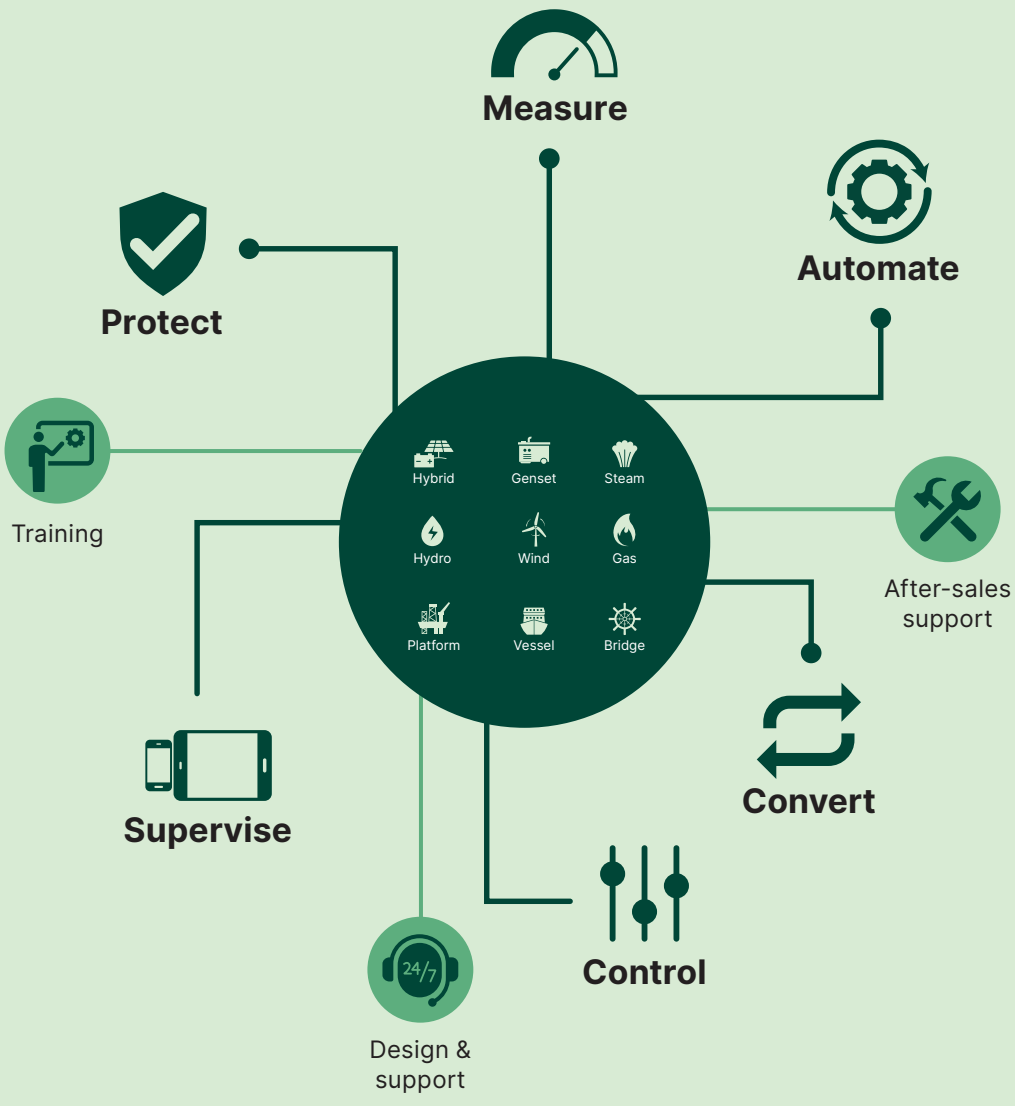
The silicon carbide components of the iE Convert offer internal resistance 10 times higher than silicon IGBT. This generates a higher isolation level, and the built-in filters and optional galvanic isolation help you protect equipment from stray and circulating currents, keep systems stable, and improve solution safety.

Why DEIF?

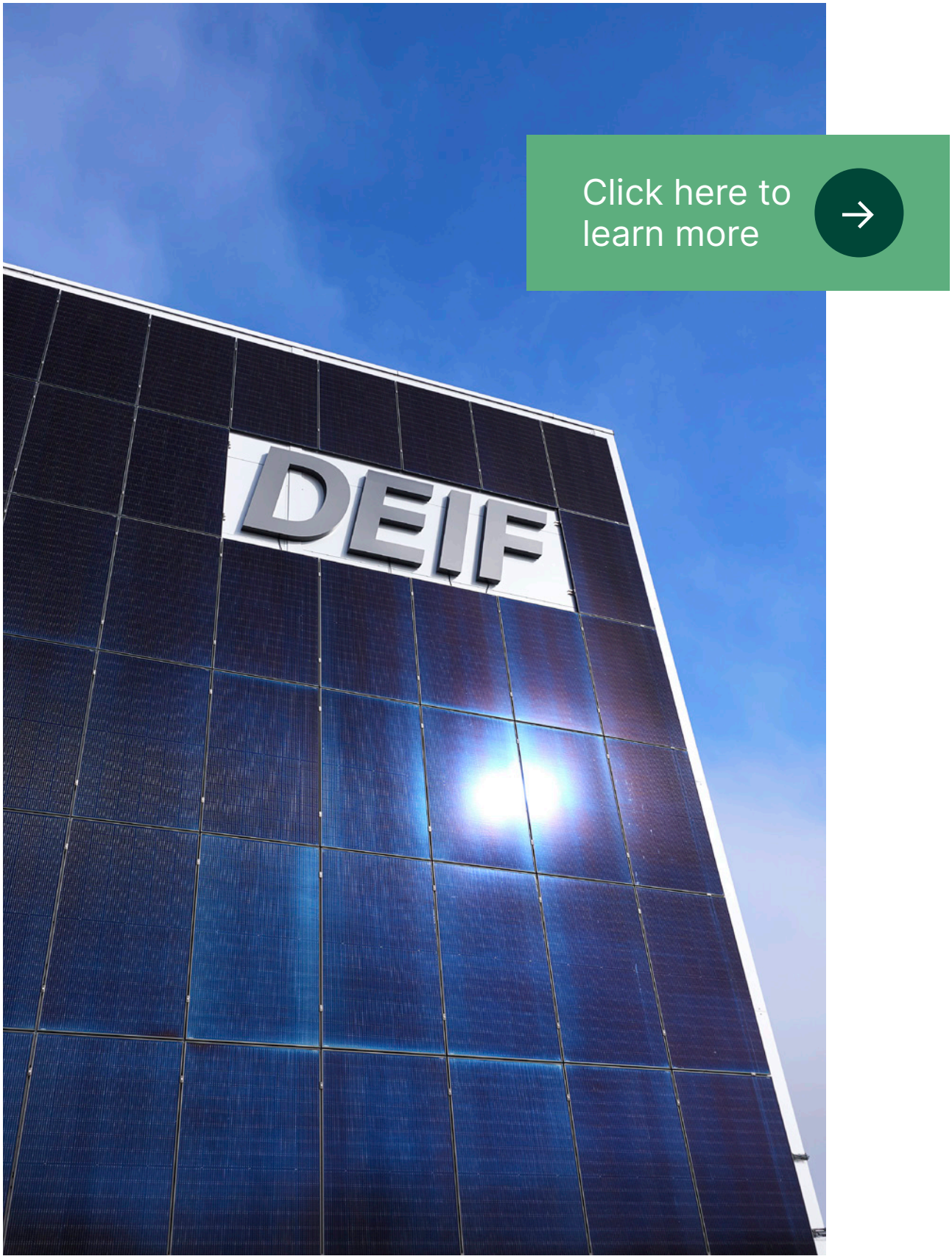
Build the energy management ecosystem you need with DEIF

DEIF can supply all the devices you need for your energy management system. From converters, graphical user interfaces, and meters to controllers, automation PLCs, and protection relays, we have what you need to design and build an ecosystem that fulfils your exact requirements.

When you do business with us, you benefit from decades of experience with energy control. We know that good advice, rapid support, efficient logistics, and working with a solid partner are as important as reliable devices when you are looking to design future-proof solutions.



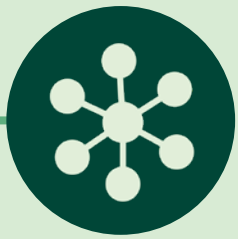
From product offerings and solution designs to annual reports and the latest company news, you can learn much more about us on deif.com



Four great reasons to work with DEIF

Your global one-stop solution partner:

DEIF offers everything you need to design a complete energy management solution, from meters and controllers to after-sales support. By sourcing all devices from one supplier, you minimise the risk of compatibility issues and only need to contact one vendor for support and assistance.



On-time delivery and local-language support

Globally, 98% of all our deliveries are on time, even for high-volume orders, and we offer flexible and fast on-site service and support all over the world through our network of subsidiaries and agents. With DEIF, you get support in your own time zone and in your own language.

Proven reliability in tough conditions:

Our devices are known for reliability, and the iE Convert is no exception. We test all our products to ensure they will keep working, even in extreme temperatures and high humidity, and during powerful vibrations or electromagnetic disturbances.

Expert training and free online content:

Our regional DEIF Academy training centres offer hands-on expert training so you can make the most of your DEIF devices. And deif.com offers free case studies, blog posts, webinars, application guides, and more on topics ranging from successful applications to industry trends.

BESS integration

Grid-forming and grid-following control of batteries in electrical systems

The iE Convert efficiently converts power between a DC battery energy storage system (BESS) and the AC grid, minimising harmonic distortion and improving energy reliability. Facilitating increased renewable energy penetration, the converter is a critical link in solutions for grid-tied storage, ancillary services, microgrid operation, and more.

Battery energy storage systems (BESS) enable grid-tied energy storage, making it possible to utilise PV, wind, and other sustainable sources, even in low-power periods. They provide near-instant grid stabilisation (ancillary services) and inertia replacement. They help you deploy hybrid microgrids that afford seamless operation and 100% renewable penetration. And they facilitate energy time-shifting, driving down the cost of energy. The iE Convert helps you integrate a BESS in these and many more applications and plays a key role in the energy transition.

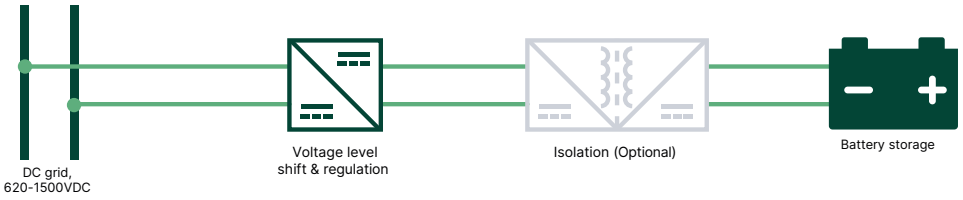
High efficiency extends battery life
The iE Convert is highly efficient across all operating conditions, maintaining superior performance above a 0.2 loading factor and delivering a 2-3% improvement over peak IGBT efficiency. This minimises energy losses and extends battery lifespan because less power cycles through the battery – a critical advantage in high-cycle applications.

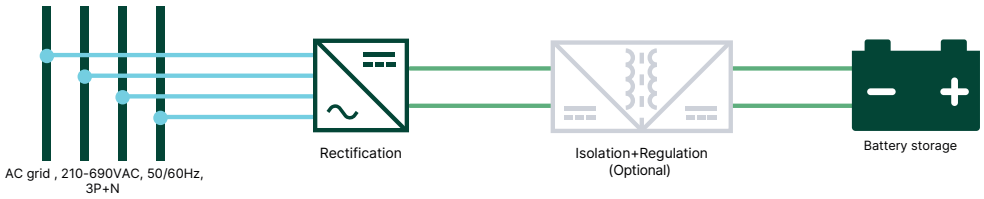
Seamless grid support
By actively correcting power factor and providing dynamic voltage support, the iE Convert stabilises the grid, reduces reactive power penalties, and improves power quality. It delivers full active and reactive power capability in all four quadrants, ensuring seamless grid support and stability across the entire battery state of charge (SOC) range, unlike conventional PCS solutions that lose capacitive VAR capability at lower SOC.

Uninterrupted energy in microgrids
With the iE Convert and DEIF energy management controllers, you can design a control solution that enables seamless microgrid operation, detecting grid disturbances and switching to off-grid mode within 100ms. Once grid conditions stabilise, the system transfers back to grid mode without disruptions, ensuring reliable operation in both grid-connected and off-grid scenarios.

Cost and space savings
Thanks to high-frequency switching, the iE Convert eliminates common-mode voltage, allowing multiple PCS units to be paralleled without additional isolation transformers. This reduces footprint, installation costs, and complexity, making it an optimal solution for both utility-scale and commercial and industrial BESS applications.

Seamless integration with DEIF controllers
You can easily integrate the iE Convert with DEIF energy management controllers to develop a fully synchronised and intelligent control solution that allows precise energy flow management and ensures that charging and discharging align with dynamic set points. The iE Convert and DEIF controllers deliver a plug-and-play, fully coordinated energy management system for both grid-tied and microgrid applications.





Hardware	Nominal capacity (kVA)	VDC (nominal)	VDC (min)	VDC (max)	VAC (nominal)	VAC (min)	VAC (max)	Frequency (range)
iE Convert (low voltage)	125, 500,900 or multiples up to 8	750	620	850	400	208	480	50/60+/-10%
iE Convert (high voltage		1100	1000	1350/1500	690	500	690	

Hardware	Nominal capacity (kVA)	VDC-in (nominal)	VDC-in (min)	VDC-in (max)	VDC-out (min)	VDC-out (max)
iE Convert (low voltage)	125, 500, 900 or multiples up to 8	750	40	850	600	950
iE Convert (high voltage		1100	40	1100	800	1350/1500

Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

iE Convert supports all BESS applications

The PCS is ideal for commercial, industrial, and utility applications

Battery energy storage systems (BESS) have significant potential for improving the reliability and efficiency of all electrical systems, from mobile power rental to stationary commercial and industrial installations and utility-scale solutions – and the DEIF iE Convert PCS supports all of these applications through

- high efficiency (enabling better utilisation of BESS capacity)
- compact footprint (enabling smaller installations that leave room for other equipment)
- low noise (facilitating solutions for use at night and in densely populated areas)
- the flexibility to handle a wide range of voltages and frequencies, and switch between AC and DC

Whether you use it to connect to an individual battery block or to an entire battery system in the same room, or whether you use it as a central master converter supplying several battery containers, the iE Convert has the capabilities you need.

Build your business case with our calculator tool

DEIF offers a calculator tool that shows you how much space and weight you can save by using iE Convert devices instead of IGBT alternatives – and the financial savings and payback period you can expect. Try it out on deif.com!

Fuel cell integration

Safe low-emission energy solutions with optional galvanic isolation

You can use a DEIF iE Convert to integrate fuel cells in your AC systems. Use it as a DC/AC converter to power an AC load, feed a busbar, or export low-emission energy to the grid with active front end (AFE) functionality. The built-in filters of the iE Convert help reduce stray or circulating currents, protecting your system from faults. If more protection is needed, you can use a DEIF iE Convert DC//DC converter with built-in galvanic isolation.

Fuel cells provide low-emission DC electricity in a wide range of scenarios, from outdoor events and construction work to hybrid microgrids in remote or off-grid locations. To integrate these energy sources in your energy system, you need to convert the energy they supply to match your requirements, and the iE Convert range offers the features you need to ensure safe and reliable integration.

Feeding an AC busbar or grid

You can specify an iE Convert DC/AC converter to convert energy from your fuel cell for use in AC applications, for example to feed a local microgrid or AC equipment on a construction site. The built-in filters of the iE Convert ensures smooth output energy that does not harm or degrade connected equipment.

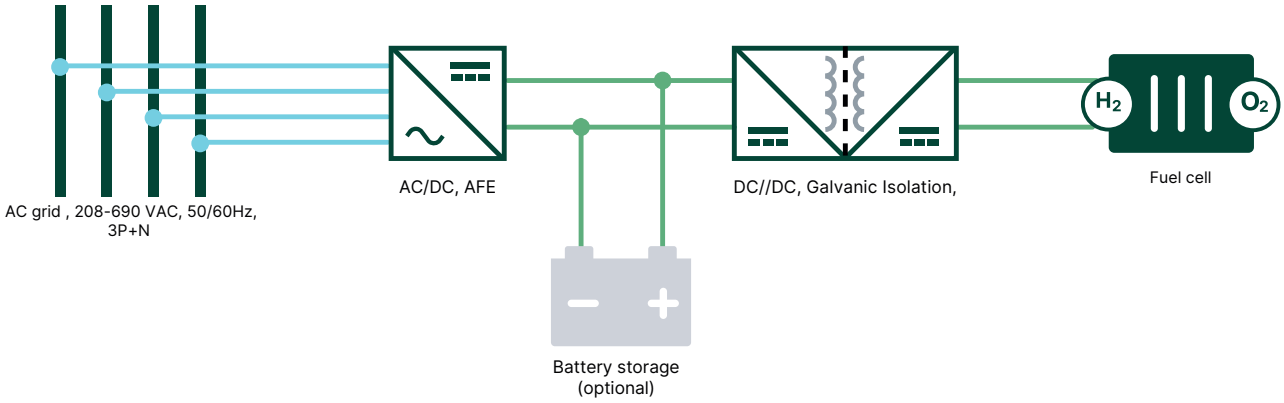
If you need to export power to the grid, you can specify the iE Convert in an active front end (AFE) configuration that converts DC to AC whilst efficiently protecting the grid from fuel cell power issues.

Adjusting DC voltage with optional galvanic isolation

If your fuel cells are feeding a DC busbar, you can use an iE Convert buck-boost DC/DC converter to transform their output voltage up or down to match your requirements.

Fuel cells are highly susceptible to busbar faults, and they can generate stray or circulating currents that could damage your system. To protect both your fuel cells and the rest of your energy system from adverse events, you can specify an iE Convert DC//DC converter with built-in galvanic isolation.

Backup energy ensures stable output
To keep output energy stable even when your fuel cells are depleted, you can integrate a backup battery or mains connection in your system using an external controller. Our wide range of controllers support everything from simple commercial and industrial hybrid systems to complex data centre power controls.



Hardware	Nominal capacity (kVA)	VDC-in (nominal)	VDC-in (min)	VDC-in (max)	VDC-out (nominal)	VDC-out (min)	VDC-out (max)
iE Convert GI (low voltage)	500 or multiples up to 4	750	300	800	850	250	950
iE Convert GI (high voltage)		1100	300	1350/ 1500	1100	1150	1420/ 1500
iE Convert GI (low voltage)	125 or multiples up to 4	750	300	800	850	250	950
iE Convert GI (low voltage)	60 or multiples up to 4	1100	300	1350/ 1500	1100	1150	1420/ 1500
iE Convert GI (high voltage)		750	300	900	1100	1150	1420/ 1500

Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

Energising an electrolyser from a DC or AC supply

Reliable power for H2 applications and efficient equipment protection

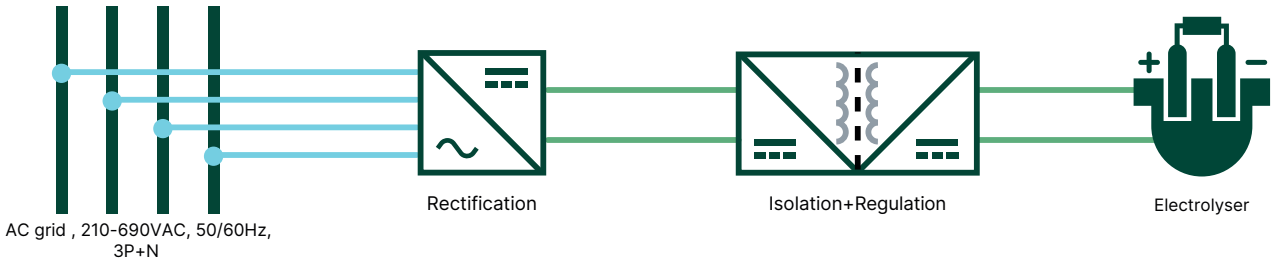
You can use an iE Convert to supply DC input energy for electrolysers in hydrogen generation applications. For AC grids or busbars, you can specify the iE Convert as an AC/DC converter; if you are working with a DC energy source, you can opt for a DC//DC converter with built-in galvanic isolation. In both cases, you get pure and reliable DC voltage that powers your H2 application whilst protecting critical and expensive equipment from issues.

Electrolysers convert low-emission energy to gas and therefore are an important link in the long-term energy storage strategy. They use electricity to split water into hydrogen and oxygen; the resulting hydrogen (H2) can help drive down emissions in sectors such as industrial manufacturing and long-distance transportation. With the DEIF iE Convert, you can supply reliable energy for electrolysers from any AC or DC source whilst protecting equipment from damage.

Using an AC energy source

The iE Convert is available in a converter configuration which converts AC to DC reliably and effectively. The converter design mitigates the harmonics that occur naturally during the rectification process, protecting the connected electrolyser from damage caused by input power issues.

With this solution, you can power the electrolyser from an AC source with no risk of performance issues or equipment damage.



Using a DC energy source with optional galvanic isolation

If you are running your electrolyser on DC energy, for example from PV panels, you can specify the iE Convert as a DC/DC converter that transforms the DC input energy to the voltage required by the electrolyser. You can also specify it as a DC//DC converter with built-in galvanic isolation that protects the electrolyser from electrical disturbances.

You can also use a BESS as a backup energy source in both AC and DC systems: Using an external application controller, you can set up the system to automatically switch to battery backup in case the primary source, for example grid power or a PV panel, fails to produce the voltage required.

Hardware	Nominal capacity (kVA)	VDC (nominal)	VDC (min)	VDC (max)	VAC (nominal)	VAC (min)	VAC (max)	Frequency (range)
iE Convert (low voltage)	125, 500,900 or multiples up to 8	750	620	850	400	208	480	50/60+/-10%
iE Convert (high voltage		1100	1000	1350/1500	690	500	690	

Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

High-frequency ground power in aviation

Reliable 400 Hz power for planes and helicopters from any AC or DC source

You can use an iE Convert to design high-frequency power supply systems for military and civilian fixed-wing aircraft and helicopters. The flexibility of the iE Convert, and its ability to work with any energy source anywhere, helps you develop solutions that will provide reliable ground support, even in remote or off-grid locations.

Military and civilian aircraft use 400 Hz power because it allows the use of smaller and lighter transformers on board. This translates into crucial space and weight savings that improve performance, reduce fuel consumption, or leave more room for other equipment. Ground power supply systems must therefore also be capable of providing 400 Hz power, and the iE Convert helps you achieve this goal reliably and safely – anywhere.

Boosting AC grid frequency

You can specify the iE Convert as a frequency converter that transforms AC grid power from 50 Hz, 60 Hz, or another frequency to the 3-phase 200V electricity at 400 Hz required by planes and helicopters. You can easily design a solution powered from the mains grid or an onsite generator.

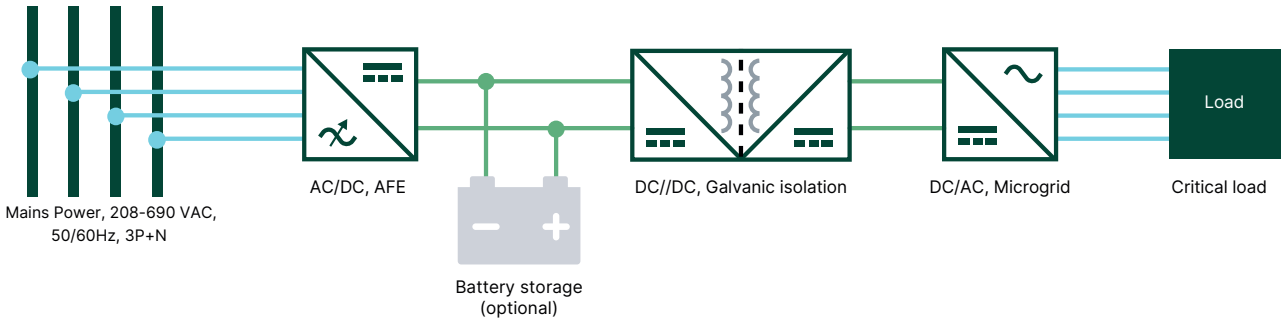
The built-in filters of the iE Convert generate pure output energy that is virtually free of harmonics and other electrical disturbances, and which will not adversely affect sensitive electronic equipment on the aircraft. You can also use our DC//DC variant with galvanic isolation to achieve full separation between supply grid and aircraft.

400 Hz from an off-grid DC source

You can also use the iE Convert for power supply solutions with low-emission DC sources. For example, you can use a fuel cell to supply the necessary power for an airport mobile ground power unit, or you can develop sturdy solutions for use at a temporary airfield, remote helipad, or forward arming and refuelling point (FARP). In all of these cases, an iE Convert DC/AC converter can supply the necessary AC power from a BESS, fuel cell, or other DC source before converting the AC frequency to 400 Hz.

Other relevant pr

In addition to the a complete range for your energy m includes controlle measuring device switchboard equi see page 32.



Hardware	Nominal capacity (kVA)	VDC (nominal)	VDC (min)	VDC (max)	VAC (nominal)	VAC (min)	VAC (max)	Frequency (range)
iE Convert (low voltage)	125, 500,900 or multiples up to 8	750	620	850	400	208	480	50/60+/-10% or 400Hz*
iE Convert (high voltage		1100	1000	1350/ 1500	690	500	690	

* based on application, contact for details

roducts

iE Convert PCS, DEIF offers
e of devices and accessories
nanagement application. This
ers, graphical user interfaces,
es, protection relays, and
ipment. For more information,

Shore power supply for ships

Flexible AMP capability with static frequency conversion

You can use the DEIF iE Convert to design a solution that enables energy flow between dissimilar electrical networks, converting any shoreside voltage and frequency to a steady and reliable shore power supply for ships as a static frequency converter. You can specify iE Convert units with galvanic isolation to protect sensitive equipment from electrical disturbances, and you can design compact solutions that take up very little space on the waterfront.

Shore power (also known as shore supply, cold ironing, and alternative maritime power (AMP)) lets you supply grid power to docked ships, allowing them to run onboard systems on shoreside electricity, shut down engines and generators, and reduce emissions in the port area.

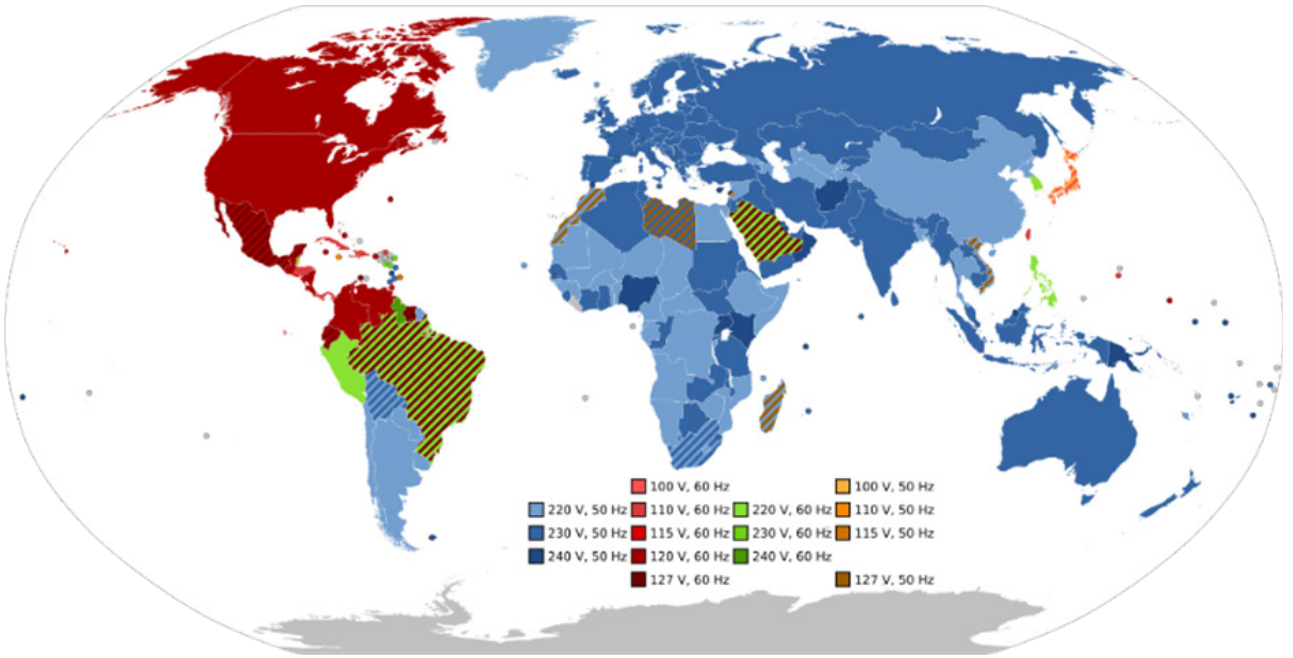
As it helps reduce air pollution and climate impact, shore connection technology is steadily becoming common – and mandatory – in ports all over the world, and you can design a shore power supply that works with any voltage and frequency and with AC or DC sources.

Efficient, flexible, and space-saving
No matter what type of input electricity you are working with, and what type of electricity you need to supply, you can use iE Convert units to design a compact and reliable solution. You can supply AC power directly to connected vessels, at 60 Hz or any other frequency, and at a wide range of output voltages. You can also convert AC input power to DC to supply ships with DC busbars or to charge an onsite battery energy storage system (BESS).

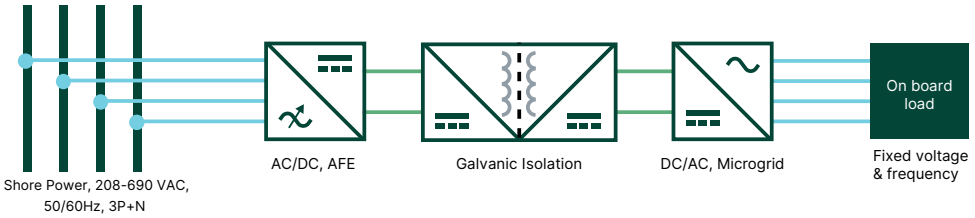
The space-saving iE Convert devices eliminate the need for an additional transformer. By replacing traditional rotary converters, the iE Convert significantly reduces footprint, installation costs, and complexity. Its power factor correction and voltage regulation capabilities further enhance grid stability and efficiency, making it a scalable and cost-effective solution.

Protect ships from power quality issues
You can eliminate electrical disturbances from your shore power supply solution by specifying iE Convert DC//DC converters with built-in galvanic isolation or DC/AC active front end (AFE) converters. By doing so, you efficiently convert power with minimal harmonic distortion, ensuring stable and reliable operation across interconnected systems.

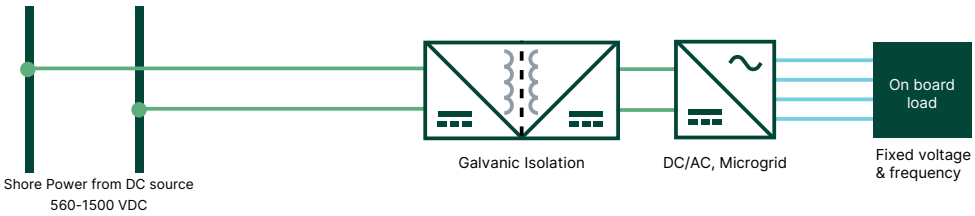
These protection features also reduce the risk of issues if you are designing a shore power supply solution based on a MW-scale BESS where power constantly needs to be inverted or rectified .



Shore connection from 3P+N, 1P+N connection



Shore power from DC source



Hardware	Nominal capacity (kVA)	VDC (nominal)	VDC (min)	VDC (max)	VAC (nominal)	VAC (min)	VAC (max)	Frequency (range)
iE Convert (low voltage)	125, 500,900 or multiples up to 8	750	620	850	400	208	480	50/60+/-10%
iE Convert (high voltage		1100	1000	1350/1500	690	500	690	

Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

True UPS (uninterruptible power supply)

Zero interruption to critical loads with double-conversion UPS

You can use the DEIF iE Convert PCS to provide a high-efficiency double-conversion uninterruptible power supply (UPS) solution, ensuring continuous, high-quality power for critical loads. A double-conversion UPS system continuously converts incoming AC power to DC and then back to AC, isolating the load from grid disturbances and ensuring uninterrupted operation in the event of power failures, voltage sags, or frequency fluctuations.

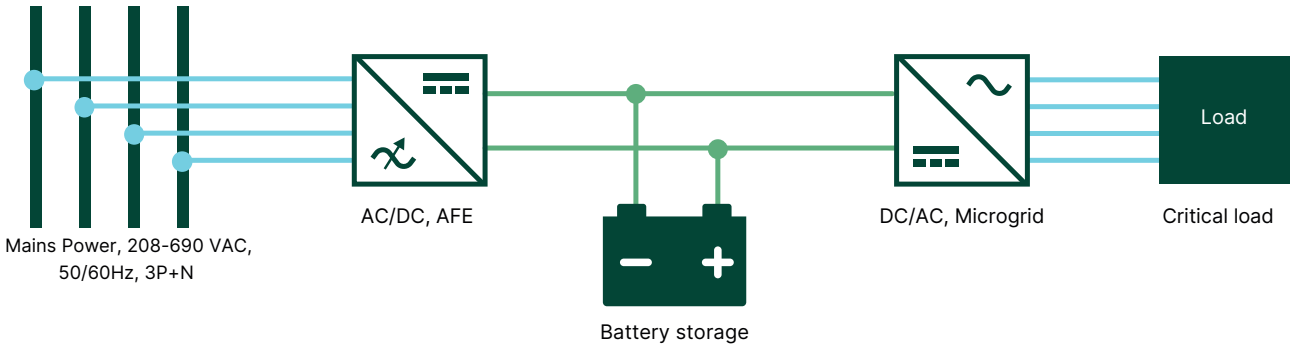
The iE Convert guarantees zero disruption to mission-critical applications, making it ideal for data centres, industrial automation, and IT infrastructure. Sensitive systems that cannot tolerate even brief power interruptions (as short as 10ms) remain fully protected, preventing data loss, hardware failures, and costly downtime.

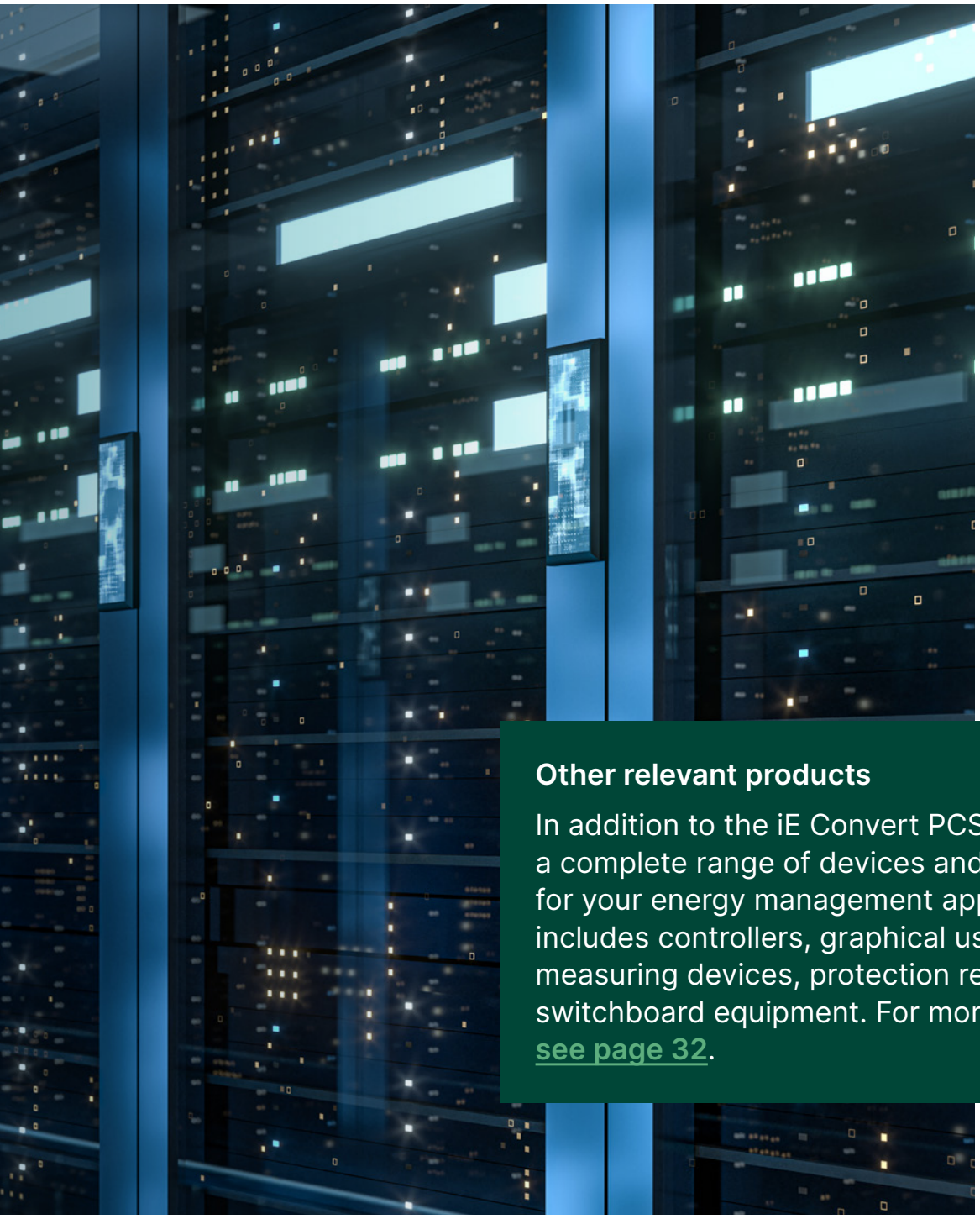
Seamless transition and stable power
By continuously regulating voltage and frequency, the iE Convert prevents grid fluctuations from reaching critical loads, unlike conventional standby or line-interactive UPS systems. In the event of a power outage, the PCS instantly switches to battery power with zero transfer time, ensuring smooth and stable power delivery.

Once the grid stabilises, the iE Convert automatically reconnects and recharges the battery without affecting the load, providing a seamless transition between power sources.

Minimising energy losses
Since all power supplied to critical loads passes through two conversion stages – AC to DC (rectification) and DC to AC (inversion) – some energy loss is always incurred. However, the SiC technology of the iE Convert significantly reduces these losses compared to silicon IGBT solutions, achieving a 2-3% efficiency improvement over silicon IGBTs per conversion stage.

This translates to reduced energy waste, lower cooling requirements, and significant cost savings, and it makes the iE Convert UPS a far more energy-efficient solution while still maintaining absolute power protection.





Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

Other energy applications

Flexible integration of any source and load in any energy system

With the iE Convert, energy can go anywhere in your system: You can configure an iE Convert to handle conversion efficiently and reliably, no matter if you need to go from AC to DC or vice versa, or if you need to step the input voltage/frequency up or down. The space-saving converter range lets you design solutions for confined spaces.

Application examples
You can configure iE Convert devices to

- integrate local energy storage systems as a buffer for short-term high-power boosts, for example to improve the overall availability and reliability of EV charging stations
- provide soft starter functionality to gradually ramp up the power supply for AC equipment
- increase the reliability and efficiency of hybrid energy systems with several different AC or DC sources and loads running at various voltages and frequencies
- design microgrids with the ability to switch from grid-following mode (while connected to the mains grid) to grid-forming mode (upon separation from the mains grid) and back again.
- integrate variable-speed generators into an AC bus by enabling power to be delivered at a fixed voltage and frequency output while allowing the diesel generator to run at optimum speed for fuel and emissions performance
- integrate solid-state generators or super capacitors to provide very fast support for transient events and supplement the relatively slower response times of synchronous gensets to limit voltage and frequency excursions on networks sensitive to deviations
- facilitate transition between different grid frequencies (for example, 50 vs. 60Hz) at border crossings or when manufacturing and testing equipment for export markets with a different grid frequency than the home market

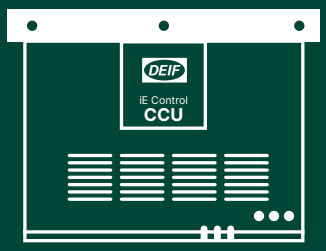
You can integrate the iE Convert with an external controller to accurately define the energy management strategies you need in your system and execute them reliably and consistently.

Other relevant products

In addition to the iE Convert PCS, DEIF offers a complete range of devices and accessories for your energy management application. This includes controllers, graphical user interfaces, measuring devices, protection relays, and switchboard equipment. For more information, see page 32.

Control and integration

Integrate your iE Convert solution in your systems



Dedicated controller

Each iE Convert module comes with a dedicated controller that you use for basic unit configuration and operation. You can connect up to 8 of these dedicated controllers to an external controller, for example a DEIF iE 150, 250, or 350 controller (see page 32). By doing so, you can control them simultaneously and achieve higher capacity by paralleling and synchronising the power blocks.

You can also connect to the dedicated iE Convert controller from a third-party control device or SCADA system.

Whether you are designing new solutions or reworking existing ones, your power converter solutions must fit into a wider context, not least as regards control. We offer a complete range of intelligent, flexible, and adaptable control devices so you can build the solution you need.

Cybersecurity first

When you control your iE Convert using a DEIF iE 250 or iE 350 controller, you get cybersecurity that keeps your system running reliably and securely, even if it is subjected to attacks by hackers or other malicious parties.

This resilience is the result of several features: All users must sign in to use the controller. The system will only accept software updates that come directly from DEIF. And the controller will keep running even if attackers try to take it down with a denial of service attack.

Read more here

All the devices you need

DEIF offers a complete range of devices and accessories for your power converter application and other energy solutions. Get a quick overview below and read more on deif.com.

Controllers

From simple to advanced applications, and from calm lakes to the high seas, our flexible, secure, and powerful application controllers and PLCs help you manage any maritime energy solution.

AGC 150 series

Flexible controller for a wide range of power and energy control applications

iE 250

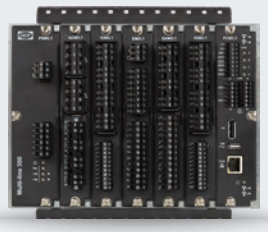
Versatile and modular intelligent energy controller

iE 350

Advanced modular controller for complex applications

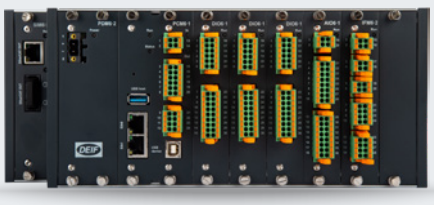
iE 250 PLC

Versatile and modular intelligent energy programmable controller



iE 350 PLC

Programmable automation controller with built-in 3-phase measurement



iE 650 PLC

Extremely robust programmable automation controller with EtherCAT based I/O

Graphical user interfaces
Available with 7” to 21” screens, our AGI 400 series of rugged touch displays lets you monitor and control any DEIF and third-party controller via standard communication protocols.

Protection relays
Combine protection, control, and measurements with our fast-acting and efficient MVR-200 series of protection relays for medium and high voltage applications.

AGI 400 series
Advanced graphical interface

MVR-200 series
Medium Voltage Relay

Switchboard equipment
Give technical staff complete control at the switchboard with our wide range of analogue meters, transducers, multi-instruments, current transformers, and more.

Read more


Improve
Tomorrow

Adapting to change through forward-thinking innovation has been a hallmark of DEIF since we went into business in 1933. That attitude has served our customers and ourselves well over the years, and although very much has changed over the course of more than nine decades, our approach has stayed the same.

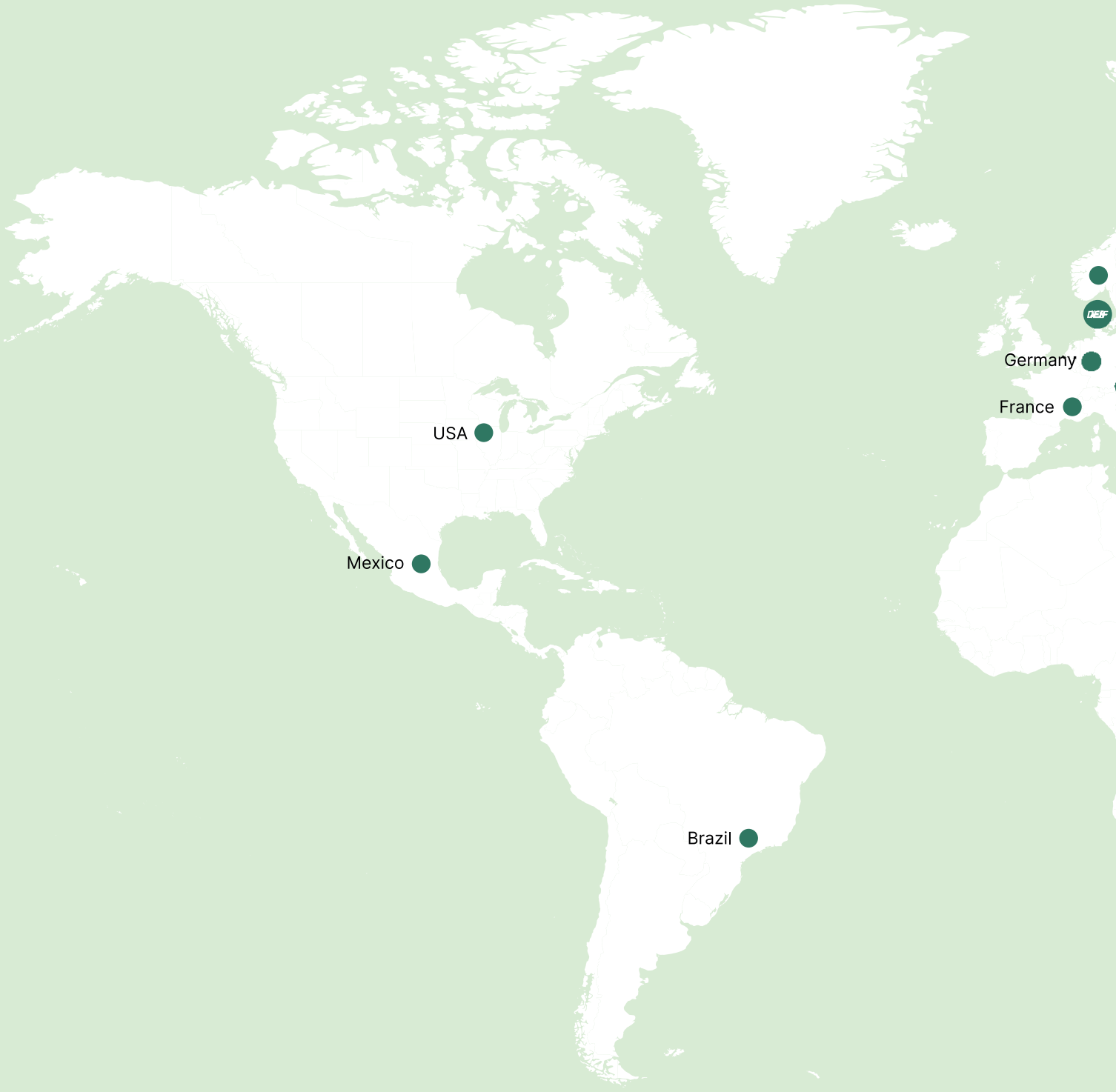
Our commitment to setting standards remains the same. Our insistence on high quality and supreme reliability remains the same. And so does our firm belief in close and honest long-term collaborations. We truly believe that businesses, authorities, and society at large can achieve great things when we join forces for a higher goal.

In many ways, our power converters are the perfect example of that approach. They are a case of high performance and great flexibility. Of always putting safety and reliability first. Of restless innovation and great results achieved through constructive partnerships. And of an unrelenting drive to reduce emissions and contribute to a cleaner environment.

The energy sector is in transition, affected by the need to move from fossil fuels to renewable sources. With our range of power converters, and our strong cooperation with key stakeholders, we are once again adapting to change. We are raising the bar of what's possible in energy control to help our customers and partners prosper. To enter new territories and enable new solutions. And above all: to **Improve Tomorrow.**

DEIF subsidiaries worldwide

DEIF A/S is a Danish family owned company with several subsidiaries and service partners all over the world. To contact DEIF subsidiaries, click below.



Contact sales

Our team of energy experts and engineers are ready to assist you. Click here.

Improve Tomorrow

DEIF A/S
Frisenborgvej 33
DK-7800 Skive

+45 9614 9614
info@deif.com
deif.com