



**SMART MODULAR
DATA CENTRES**

INTELLIGENT SOLUTIONS
FOR YOUR EDGE APPLICATIONS

2025

SMART MODULAR DATA CENTRES

EMBRACE DIGITISATION

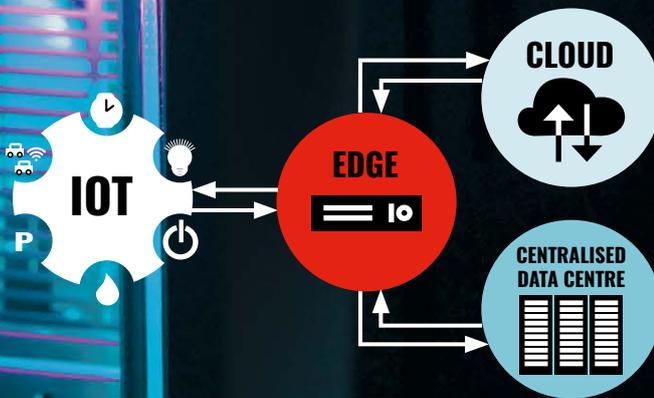
Our world is becoming increasingly digital, interlinked and intelligent. The Internet of Things, automation, 5G, robotics and artificial intelligence are opening up many new applications and business models. To capitalise on the opportunities which come with digitalisation, your organisation must rely on a smart and strategic IT infrastructure.

We are a global player that helps organisations to stay at the forefront of progress, elevating their core business. While you focus on developing your business we take care of your IT infrastructure – with one-stop service solutions tailored to your needs.



WHY EDGE DATA CENTRES?

- Low latency
- Data processing just in time
- Data aggregation
- Network-independent local operation
- Protection of your critical data



Use our
CALLBACK SERVICE!

We are happy to help you.

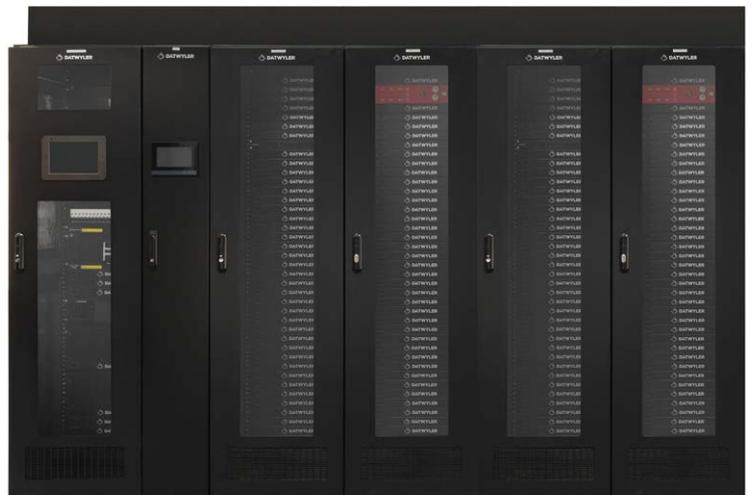


CHARACTERISTICS OF AN EDGE DATA CENTRE

- Located in a strategic site close to the users and devices
- Supports distributed data processing
- Complete equipment in just one cabinet or in multiple racks
- Reliable self-contained system
- Provides optimal physical & cyber security
- Offers high-performance internet connection
- Remote monitoring of infrastructure
- Can work independently from the Cloud



SMDC – SINGLE-RACK



SMDC – MULTI-RACK

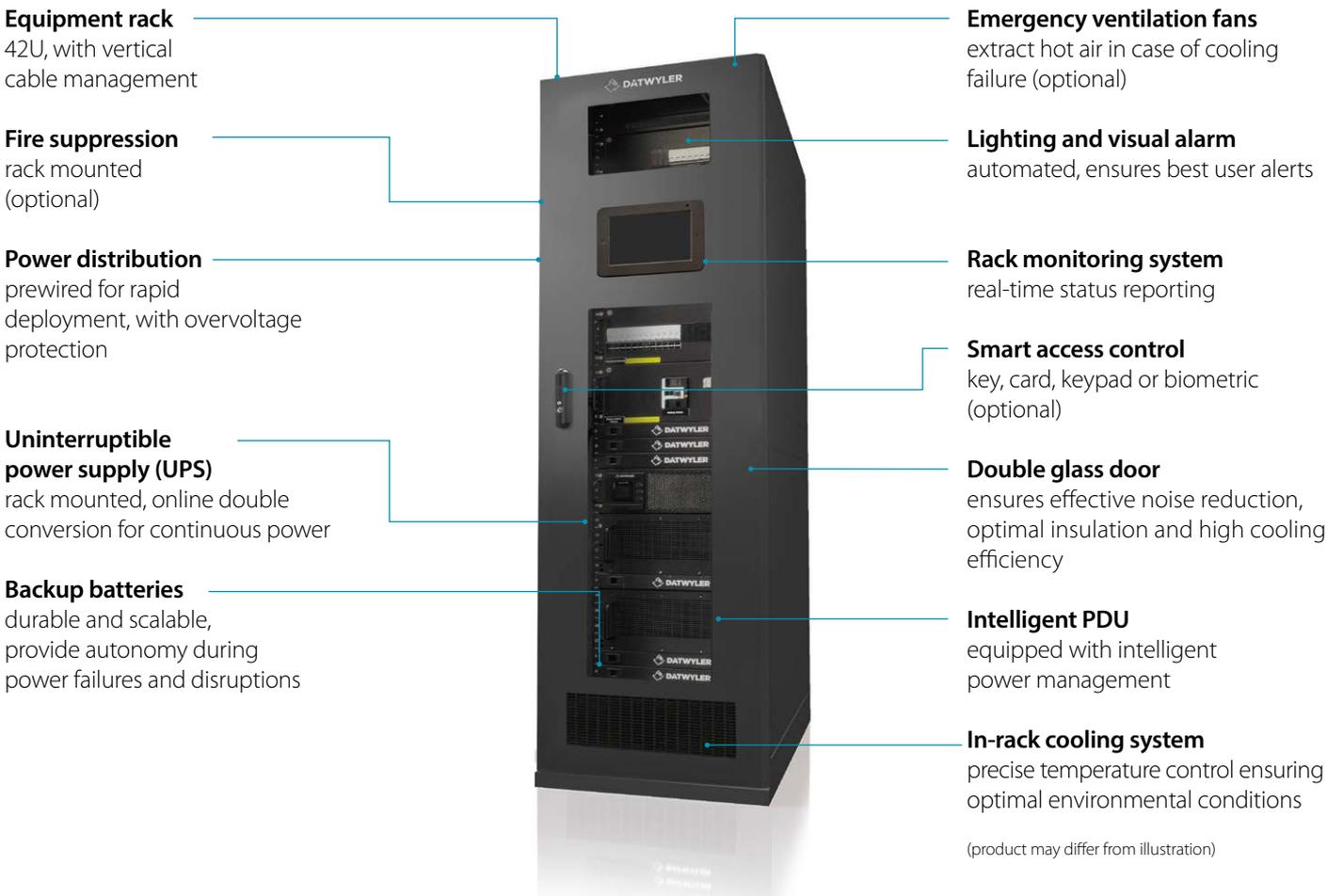


SMART MODULAR DATA CENTRES

SMDC – SINGLE-RACK

This Smart Modular Data Centre from Datwyler is a compact, preassembled, fully monitored and managed, low-maintenance plug-and-play IT infrastructure solution that can be put into operation on site within a few hours. It is a stand-alone data centre that includes elements such as cooling, power supply, monitoring and security integrated into a single solution.

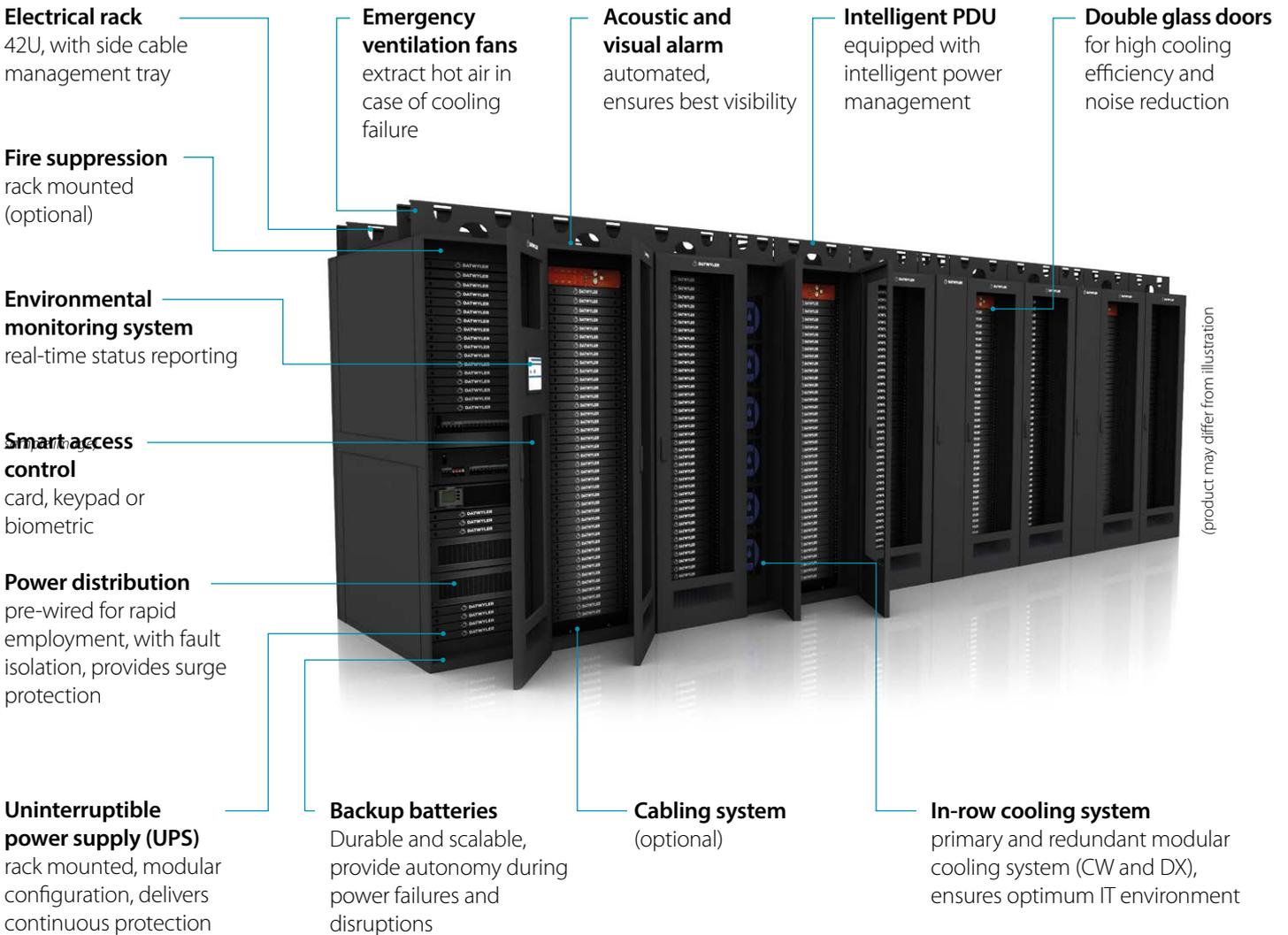
Unlike in-house data centres and server rooms which need extensive maintenance, planning, cost and space, Datwyler’s single-rack SMDC is an extremely compact solution that enables businesses to run their applications on-premise or at the “Edge”. The equipment can be customised according to your needs and requirements.



SMDC – MULTI-RACK

This Smart Modular Data Centre from Datwyler is a state-of-the-art, pre-assembled plug-and-play IT infrastructure solution. It consists of a 42U rack with integrated power distribution, uninterruptible power supply (UPS), fire suppression system (optional), air gap sealing and environmental monitoring system as well as additional IT equipment racks and an in-row cooling system. It can be deployed within a few hours. It provides multiple ways to configure power and cooling redundancy to meet the current demand while being ready for future technology migration at low cost and with less disruption.

Datwyler’s multi-rack SMDC is designed for applications such as edge computing, small data centre, building distributor (BD) and floor distributor (FD) as well as for smart buildings and facilities deploying IoT devices.



SCALABLE. ENERGY EFFICIENT. RELIABLE.

The amount of data produced will continue to grow exponentially. These data volumes have to be processed close to their source (edge computing) due to, among other factors, efficiency and latency. This requires many small to medium-sized data centres that are smart and modular and can grow with increasing demands.

Our SMDC standard portfolio at a glance.
We also offer customised solutions for different applications.

	3 kVA	20 kVA
		
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Tier I</div> <div style="border: 1px solid black; width: 100%; height: 100%; margin-bottom: 10px;"></div> <div style="border: 1px solid black; padding: 5px;">Tier III</div> </div>	<ul style="list-style-type: none"> • UPS3: 3 kVA online UPS system with 15 mins backup batteries • PDM6: Power distribution module, up to 6 kVA • Cool3.5: 3.5 kW in-rack cooling unit • 1 x 42U rack 	<ul style="list-style-type: none"> • UPS20: 20 kVA online UPS system with 10 to 15 mins backup batteries • PDM20: Power distribution module, up to 20 kVA, 125 A (3ph/N/PE) • 1 x 42U electrical rack • 1 x Cool25: 25 kW in-row cooler, 50/60 Hz • 4 x 42U rack
Server	up to 10	up to 40
Processing load	80–100 CPU cores 6–8 GPUs	320–400 CPU cores 30–40 GPUs
Network ports	up to 96	up to 192



30 kVA	40 kVA
	
<ul style="list-style-type: none"> • UPS30: 30 kVA online UPS system with 10 to 15 mins backup batteries • PDM40: Power distribution module, up to 40 kVA, 160 A (3ph/N/PE) • 1 x 42U electrical rack • 2 x Cool25: 25 kW in-row cooler, 50/60 Hz • 6 x 42U rack 	<ul style="list-style-type: none"> • UPS40: 40 kVA online UPS system with 10 to 15 mins backup batteries • PDM40: Power distribution module up to 40 kVA, 160 A (3ph/N/PE) • 1 x 42U electrical rack • 1 x 42U battery rack • 2 x Cool25: 25 kW in-row cooler, 50/60 Hz • 8 x 42U rack
up to 45	up to 70
450–550 CPU cores 50–60 GPUs	800–1000 CPU cores 100–120 GPUs
up to 288	up to 384

SPECIAL SOLUTIONS

Protect your sensitive data and servers on site with an IT Safe against all major physical hazards such as theft, vandalism and natural forces.



IT SAFE

The modular compact data centre for the security of your IT infrastructure.

- IT protection with high availability
- Compact: less than 2 m²
- Flexible, modular and expandable
- Maximum IT security
- Standard with two doors at the front and two at the back
- Monitoring
- Energy efficient systems
- Fully redundant cooling system (optional)
- Cooling units designed for continuous operation
- Immediately applicable

Use a mobile data centre container wherever critical applications, data and servers are used in your business. In addition to mobile and modular use, a data centre container protects against dust, damage, fire, rain, water and unauthorised access.



DATA CENTRE CONTAINER

Mobile, modular, robust and absolutely reliable.



- Fully welded steel container
- Fire protection: EI90, EI60, EI30 (i -> o) according to EN 13501-2 and EN 1363-1
- Dust and water tightness IP 56 according to EN 60529
- Smoke tightness according to EN 1634-3
- Class RC 3-4 burglar resistance according to EN 1627/EN1630
- Corrosion protection system: class C1 (indoor areas) to class C5 (coast) according to DIN EN ISO 12944

Please also use the online configuration tools on our website to create your individual data centre solution.

DCIM – DATA CENTRE INFRASTRUCTURE MANAGEMENT

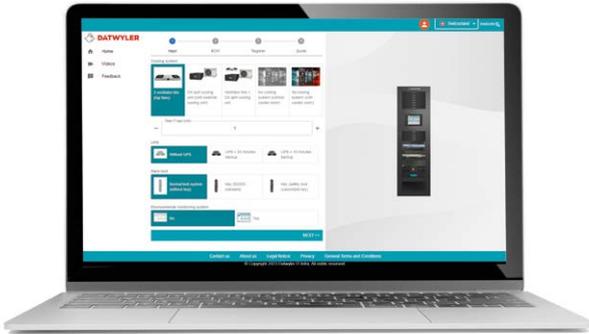
The Datwyler Data Centre Infrastructure Management (DCIM) system provides a top level as well as a detailed overview of the status of IT infrastructure housed within a Smart Modular Data Centre. The system is characterised by real time remote monitoring of environmental conditions, access and energy consumption of IT infrastructure devices and systems. In case of faults or emergencies the system is capable of alerting the user to take timely and necessary action to protect the mission critical IT systems.

SYSTEM ARCHITECTURE



DCIM FEATURES

- Multilingual Web GUI with integrated logic
- Autosensing ports for the automatic detection of sensors
- User access management
- Integrated interfaces: Ethernet, USB, CAN, analog & digital
- SNMP-compatible
- Provides notifications and alerts such as email, SMS and SNMP traps
- Extensive range of sensors for environmental monitoring, security control and power monitoring
- USB interface for video camera
- SD card slot for optional SD card (max. 64 GB)
- SIM card slot for optional LTE modem
- Alarms for maintenance and critical events
- Graphical representation of environmental data



SMART MODULAR DATA CENTRE ONLINE CONFIGURATOR

The configurator for our Smart Modular Data Centres (SMDC) offers you the opportunity to easily plan and design the desired IT infrastructure solution – from a Single-Rack to a Multi-Rack and even larger data centre solutions.

Configure your Smart Modular Data Centre based on your individual needs!

EFFECTIVE EXPERT SERVICES

Companies can optimise their resources and concentrate on their core competences by outsourcing IT tasks to specialist providers like Datwyler, while at the same time ensuring that their IT systems are always state-of-the-art and safe from cyber attacks.

Our services cover the whole value chain: from site surveys, conception and system engineering through installation, logistics and turnkey supply to documentation and system maintenance. The basis for this is our competence in product design, our operating experience, our international presence and our globally established partner network.

Datwyler believes that individual and flexible solutions are part of a good service. First-class support and fast response times in the event of problems are a matter of course for us.

DATA CENTRE INFRASTRUCTURE AND DATA NETWORK SERVICES

The Datwyler data centre infrastructure and data network range of services includes all the technical and site-related measures needed to ensure the successful design and project implementation of your IT infrastructures as well as their professional maintenance, for example

- Design and Consultancy
- Audit and Assessment
- Financing and Leasing
- Turnkey Implementation and Commissioning
- Maintenance and Repair



TYPICAL APPLICATIONS

A RAPIDLY MATURING MARKET:



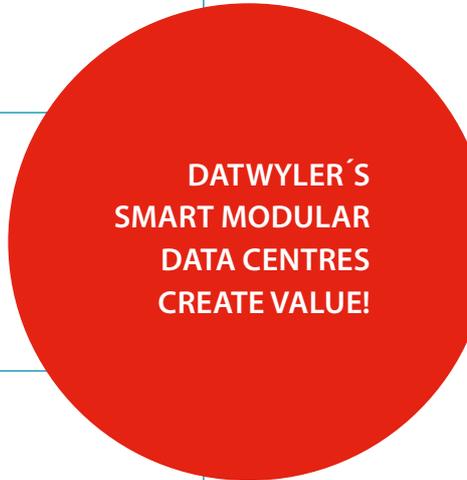
- Ease of use**

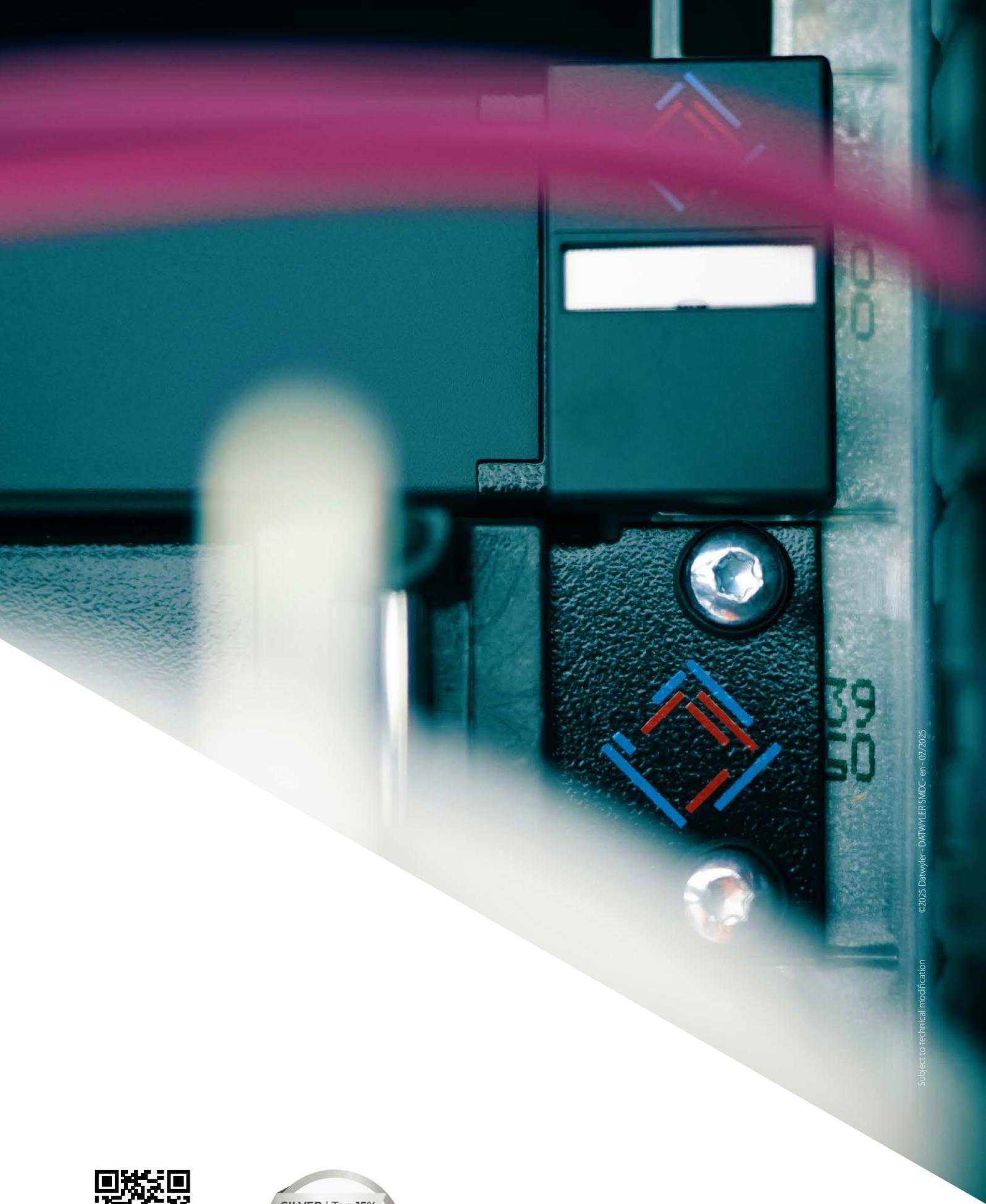
 - Pre-configured for various operational scenarios, therefore fast ordering
 - Plug-and-play solution
 - Rapid deployment
 - Touch-screen and user-friendly software
- High reliability**

 - Quality of each individual component is tested prior to delivery
 - The environment and security monitoring system protects the equipment
 - All data is managed and stored redundantly on local storage media as well as in the Cloud
 - Can be monitored anywhere and anytime
 - Proactive alarm notification via email and/or SMS
- Low TCO (Total Cost of Ownership)**

 - Real-time monitoring of the UPS and cooling unit helps to save energy
 - Integrated cooling ensures high power usage effectiveness (PUE)
 - Small footprint and fast deployment
 - Constant monitoring reduces downtime caused by failure
- Fast maintenance**

 - Key components are of modular design
 - UPS with maintenance bypass
 - Remote management of all the equipment in the rack(s) allows authorised personnel to be alerted so that faults can be rectified before they have serious consequences





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