DÄTWYLER

NEW PRODUCT LINE

SMART MODULAR DATA CENTRES

TAILOR-MADE SOLUTIONS FOR ALL YOUR NEEDS
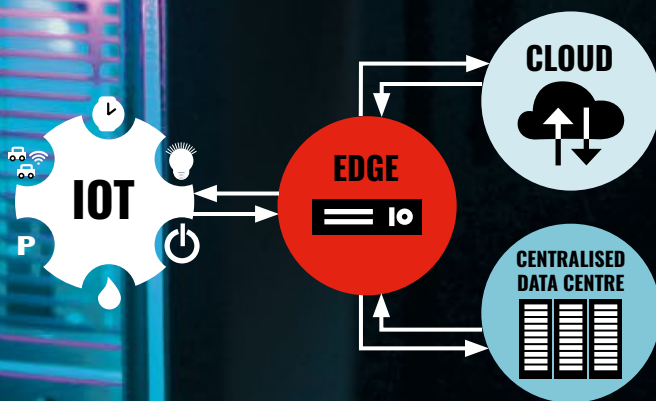
2025

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.

Datwyler IT Infra is 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**
- · **Real-time data processing**
- · **Data aggregation**
- · **Network-independent local operation**
- · **Protection of your critical data**
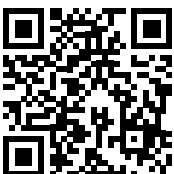
Use our
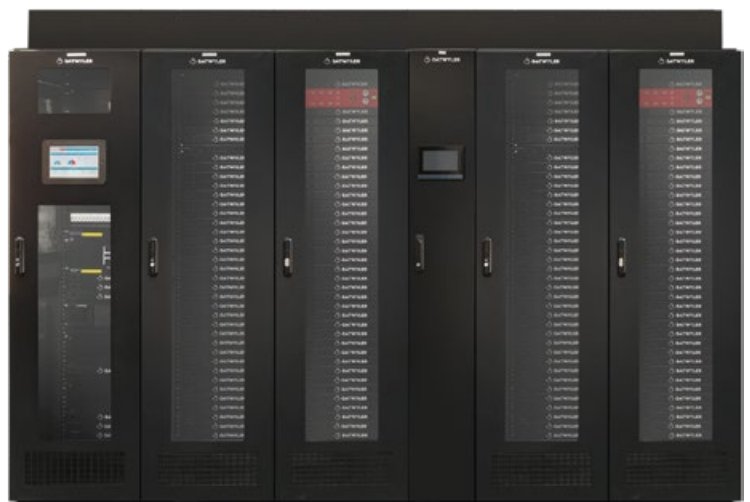### CALLBACK SERVICE

We are happy to help you.

WHAT DISTINGUISHES
A SMART MODULAR DATA CENTRE

· Close proximity to users and devices (Edge)
· 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 connectivity
· Remote monitoring of infrastructure
· Can work independently from the Cloud

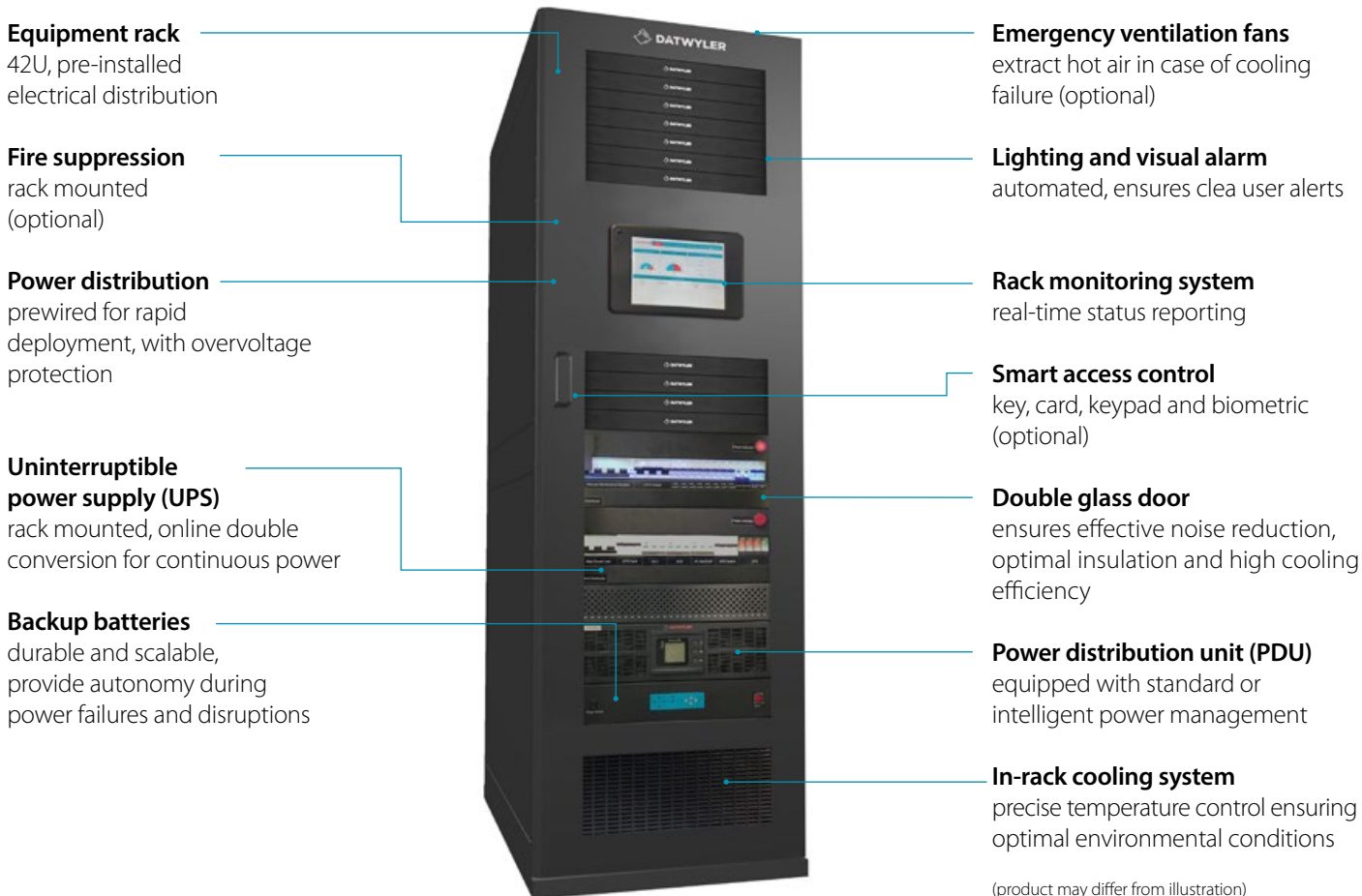**SMDC – SINGLE-RACK**

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 integrates key elements such as cooling, power supply, monitoring and security into a single solution.

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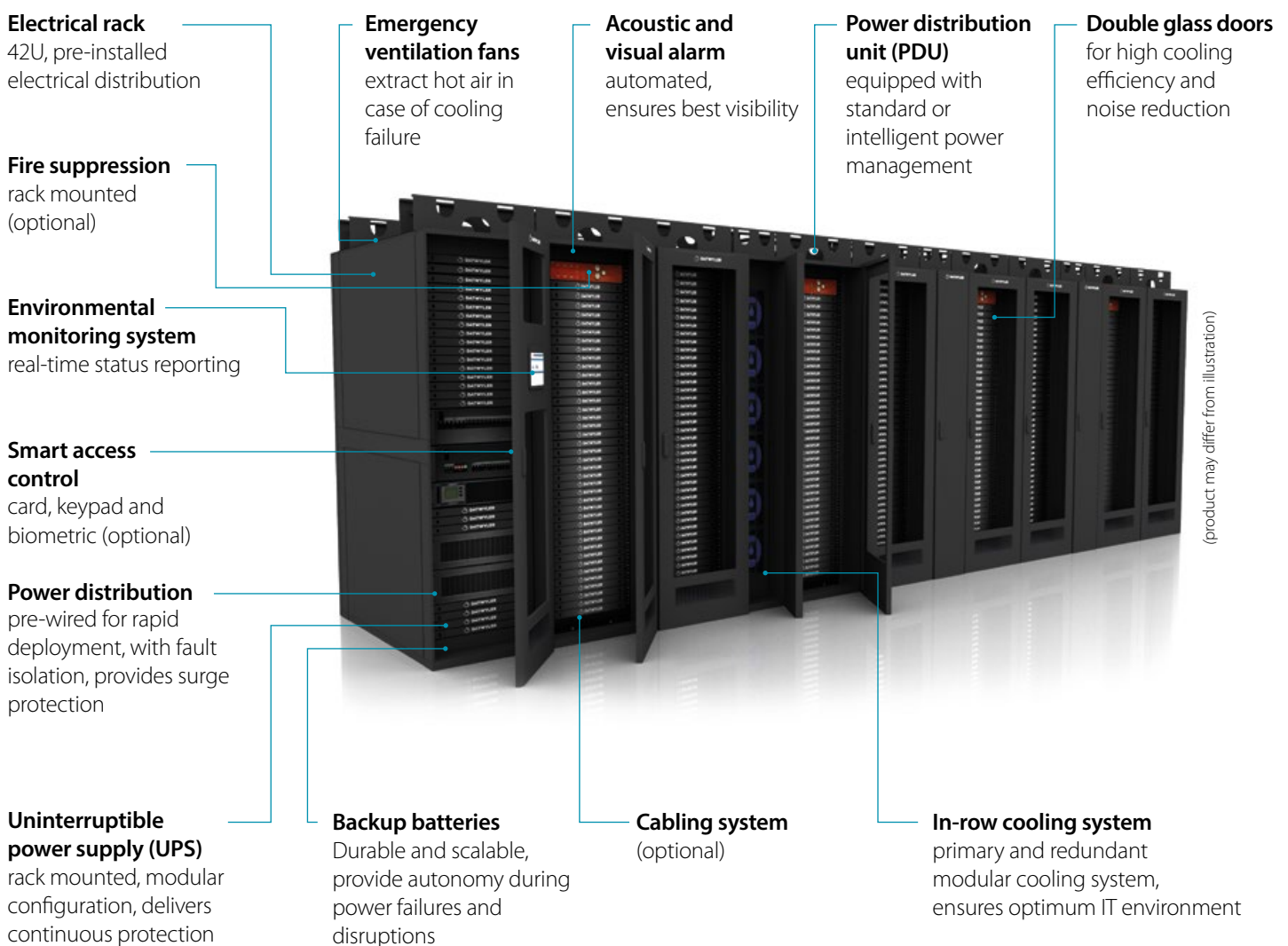
The equipment can be customised according to your needs and requirements.

Equipment rack
42U, pre-installed electrical distribution

Fire suppression
rack mounted (optional)

Power distribution
prewired for rapid deployment, with overvoltage protection

Uninterruptible power supply (UPS)
rack mounted, online double conversion for continuous power

Backup batteries
durable and scalable, provide autonomy during power failures and disruptions

Emergency ventilation fans
extract hot air in case of cooling failure (optional)

Lighting and visual alarm
automated, ensures clea user alerts

Rack monitoring system
real-time status reporting

Smart access control
key, card, keypad and biometric (optional)

Double glass door
ensures effective noise reduction, optimal insulation and high cooling efficiency

Power distribution unit (PDU)
equipped with standard or intelligent power management

In-rack cooling system
precise temperature control ensuring optimal environmental conditions

(product may differ from illustration)

SMDC – MULTI-RACK

The Smart Modular Data Centre (SMDC) is a scalable, pre-assembled, plug-and-play solution designed for edge computing and optimised for rapid deployment. Each multi-rack SMDC features a configurable power supply unit and a redundant in-row cooling system, providing seamless scalability and technology upgrades with little additional cost or disruption. The multi-rack solution ensures a capacity of up to 40 kVA. It consists of 42U racks, an integrated intelligent power distribution, an uninterruptible power supply (UPS, optionally redundant) and a flexible, compact cooling system with a capacity of up to 25 kW per cooling unit. There is also a fire suppression system (optional), air gap sealing and comprehensive software for infrastructure management.

The multi-rack SMDC supports edge computing, operating smart facilities with IoT devices, remote or branch offices or it serves as a building distributor (BD). Advanced applications include technologies such as AI, AR, VR and automation systems that require flexible, scalable and energy-efficient real-time data processing.

Electrical rack
42U, pre-installed electrical distribution

Fire suppression
rack mounted (optional)

Environmental monitoring system
real-time status reporting

Smart access control
card, keypad and biometric (optional)

Power distribution
pre-wired for rapid deployment, with fault isolation, provides surge protection

Uninterruptible power supply (UPS)
rack mounted, modular configuration, delivers continuous protection

Emergency ventilation fans
extract hot air in case of cooling failure

Acoustic and visual alarm
automated, ensures best visibility

Power distribution unit (PDU)
equipped with standard or intelligent power management

Double glass doors
for high cooling efficiency and noise reduction

Backup batteries
Durable and scalable, provide autonomy during power failures and disruptions

Cabling system
(optional)

In-row cooling system
primary and redundant modular cooling system, ensures optimum IT environment

(product may differ from illustration)

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 bespoke solutions tailored to specific applications

	SMDC 3 kVA	SMDC 10 kVA	SMDC 20 kVA
Tier I ready for **Tier II** ready for **Tier III**	• **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 rack, 42U**	• **UPS10:** 10 kVA online UPS system with 15 mins backup batteries • **PDM10:** Power distribution module, up to 10 kVA • **1 Electrical rack, 42U** • **1 Cool25:** 25 kW in-row cooler, 50/60 Hz • **3 IT racks, 42U**	• **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 Electrical rack, 42U** • **1 Cool25:** 25 kW in-row cooler, 50/60 Hz • **4 IT racks, 42U**
Server	up to 10	up to 20	up to 40
Processing load	80–100 CPU cores 6–8 GPUs	150–200 CPU cores 20–24 GPUs	320–400 CPU cores 30–40 GPUs
Network ports	up to 96	up to 128	up to 192

Further information

SMDC 30 kVA	SMDC 40 kVA	
• **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 Electrical rack, 42U** • **2 Cool25:** 25 kW in-row cooler, 50/60 Hz • **6 IT racks, 42U**	• **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 Electrical rack, 42U** • **1 Battery rack, 42U** • **2 Cool25:** 25 kW in-row cooler, 50/60 Hz • **8 IT racks, 42U**	**Bespoke solutions**
up to 45	up to 70	
450–550 CPU cores 50–60 GPUs	800–1000 CPU cores 100–120 GPUs	
up to 288 (or 576 fibre optic)	up to 384 (or 768 fibre optic)	

BESPOKE SOLUTIONS

Do you need a data centre solution that deviates from the SMDC standard portfolio? No problem! For many years, Datwyler has successfully implemented data centre projects around the world that couldn't be more diverse, but all have one thing in common: they are tailored to the specific needs of our customers.

Our turnkey approach, which encompasses all phases from design to operation, ensures the seamless implementation of your project. We efficiently budget and accompany implementation, testing and commissioning, ensuring a reliable, scalable and future-proof solution whose performance we further enhance through continuous maintenance and optimisation.

IT SAFE

The modular compact data centre designed to secure your IT infrastructure

· IT protection with high availability
· Compact: less than 2 m^2
· 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
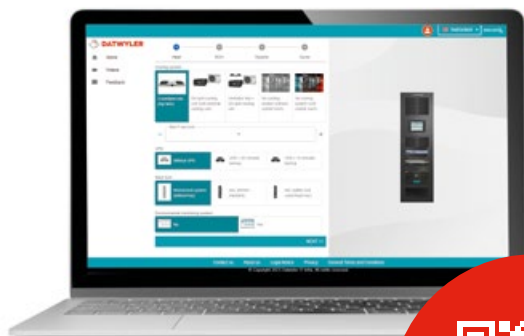· Immediately applicable

DATA CENTRE CONTAINER

Mobile, modular, robust and absolutely reliable.

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.

· 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

DATWYLER SERVICES

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 single rack to multi-rack and even larger data centre solutions.

Just contact us. We'll be happy to help you configure your SMDC!

Use our
CALLBACK SERVICE!

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
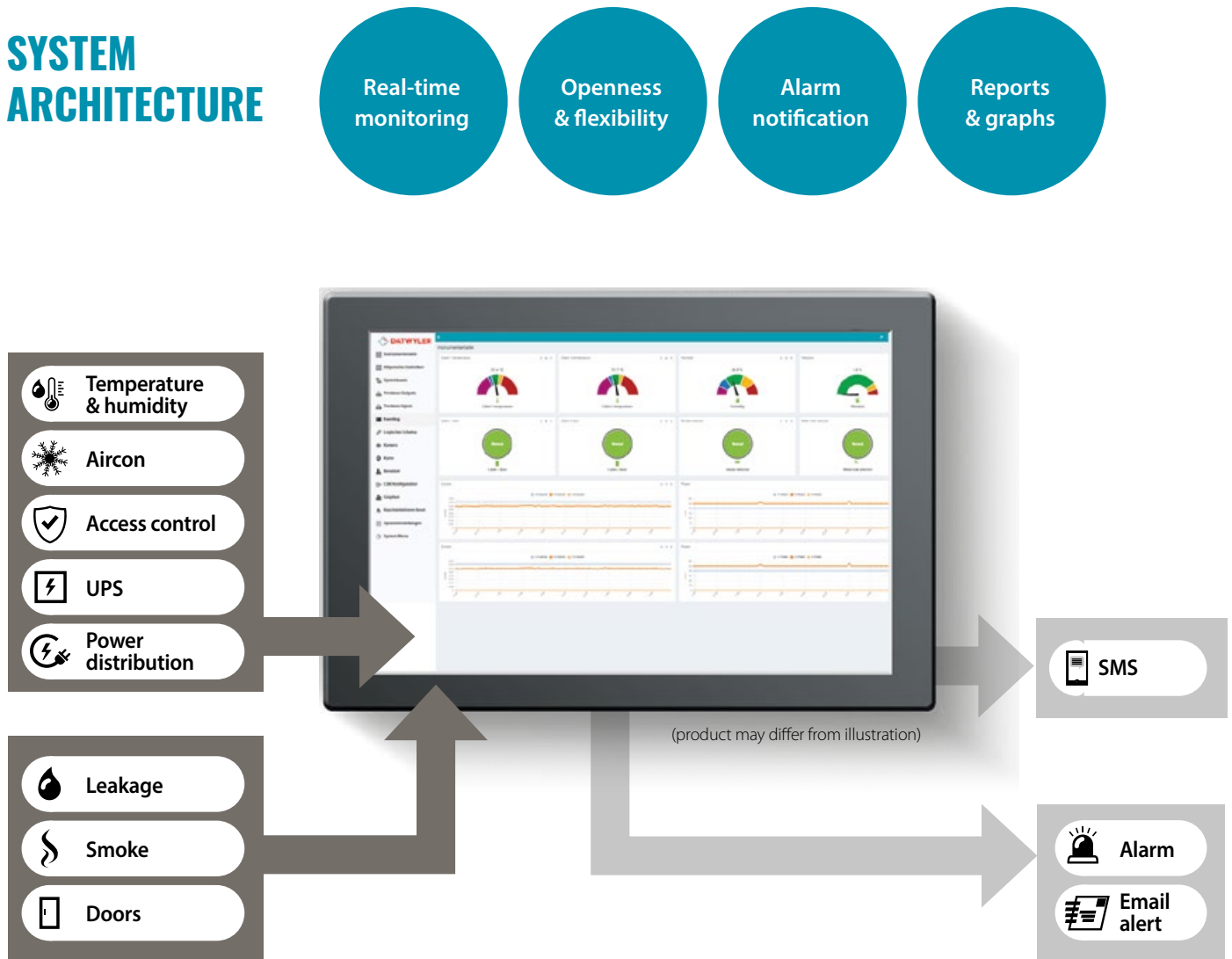• Maintenance and repair

Further information

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

- Real-time monitoring
- Openness & flexibility
- Alarm notification
- Reports & graphs

- Temperature & humidity
- Aircon
- Access control
- UPS
- Power distribution

- Leakage
- Smoke
- Doors

(product may differ from illustration)

- SMS
- Alarm
- Email alert

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

TYPICAL APPLICATIONS

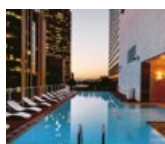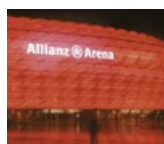Data centres   Office buildings   Public buildings   Manufacturing   Hotels/Resorts   Education   Shopping malls   Event arenas   Transport hubs

BENEFITS AT A GLANCE

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
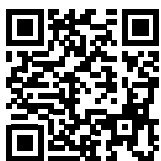before they have serious consequences

**DATWYLER'S
SMART MODULAR
DATA CENTRES
CREATE VALUE!**

WE DELIVER CUSTOMER VALUE
with tailor-made solutions and
outstanding expertise.

ITinfra.datwyler.com

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