



# MICRO AND MINI DATA CENTRES

CUTTING **EDGE** SOLUTIONS FOR YOUR  
DECENTRALISED DC ARCHITECTURE

2022



**DATWYLER**

# EMBRACE DIGITISATION

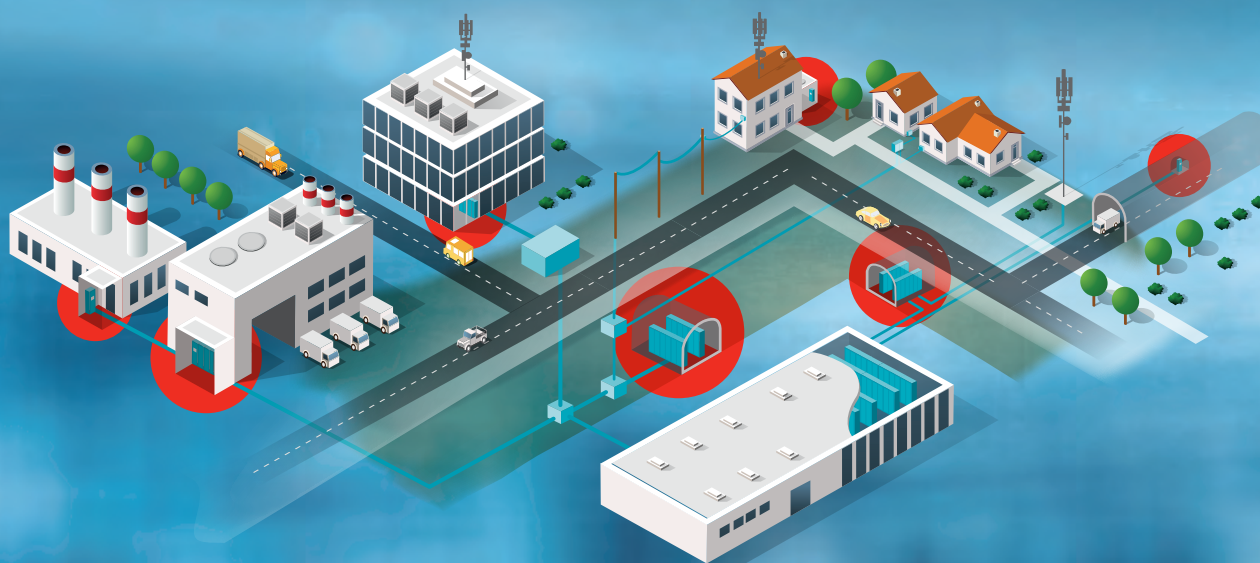
Our world is becoming increasingly digital, interlinked and intelligent. IoT, automation, 5G, robotics and artificial intelligence are opening up many new applications and business models.

To capitalise on the opportunities which come with digitalisation, your organisation must rely on a smart and strategic IT infrastructure.

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. A lot of mini and micro data centres are needed to do this.

Datwyler 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.



**"In 2018 about 10% of data were created and processed outside centralized data centre and cloud. By 2025, they predict this figure will reach 75%."**

**GARTNER**

## WHY EDGE DATA CENTRES?

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



# DATA CENTRE ARCHITECTURE MOVING TO EDGE

## IMPERATIVES IN EDGE DATA CENTRE

- . Reliable, self-contained system
- . Robust security
- . Data analytics
- . Remote monitoring
- . Low latency
- . High speed

## DATWYLER OFFERS IN EDGE DATA CENTRE

- . Micro and Mini Data Centre solutions
- . DCIM
- . Access control
- . UPS, RPS
- . Cooling, fire suppression
- . Energy distribution
- . FO, FTTH, GPON, POL
- . Cabling up to 100 Gbps

## CHARACTERISTICS OF AN EDGE DATA CENTRE

- . Close proximity to the data source
- . Supports distributed data processing
- . Includes data from IoT devices
- . Offers high-performance internet connection
- . Equipment can be in just one cabinet or in multiple racks
- . Located in a strategic site close to the users and devices
- . Supports any network protocols and one-hop connections, wirelessly and/or using copper or fibre optic cables
- . Provides optimal physical & cyber security
- . Tier level is not lower than Cloud data centre and centralized data centre



**Datwyler Micro Data Centre**  
with in-rack cooling or side cooling



**Datwyler Mini Data Centre**  
up to 8 racks, with in-row cooling

# TYPICAL INDUSTRY APPLICATIONS

## A rapidly maturing market:

- . Retail
- . Entertainment
- . Healthcare
- . Banking
- . Education
- . Logistics
- . Government
- and many others



Data Centres



Office Buildings



Government Buildings



Shopping Malls



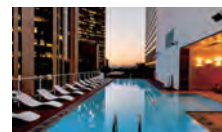
Event Arenas



Transport Hubs



Manufacturing



Hotels and Resorts



Education

**DATWYLER  
MICRO & MINI  
DATA CENTRES  
MAKE YOUR  
LIFE EASIER**

## 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 solution 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 MICRO DATA CENTRE (3 KVA)

Datwyler's Micro Data Centre is a state-of-the-art, pre-assembled plug-and-play IT infrastructure solution for edge computing that consists of one 42U rack, power distribution, uninterruptible power supply (UPS), cooling system, fire suppression system, air gap sealing and environment monitoring system. Complete data centre deployment within few hours, future-proof with multiple ways to configure power and cooling redundancy to meet the current demand while ready for future technology migration at no cost and less disruption. Datwyler's Micro Data Centre is designed for applications such as edge computing, computing node in remote and branch offices, floor distributor (FD) and smart facilities deploying IoT devices and running AI, AR, VR and automation.

### Fire suppression (FM200 or Novec 1230)

Rack mounted system to prevent fire hazard from spreading

### Power distribution

Pre-wired power distribution panel with fault isolation to provide surge protection and rapid deployment

### Uninterruptible power supply

Rack mounted UPS with modular configuration to deliver continuous/ purified power and protection to the IT equipment

### Backup batteries

Durable and scalable batteries to provide autonomy during power failures and disruptions

### Equipment rack

42U rack space for IT equipment with side cable management tray

### Dual power input

Pre-equipped with rack mounted automatic transfer switch (ATS) (optional)



### Double glass

For higher cooling efficiency and noise reduction

### In-rack cooling system

Modular cooling system equipped with humidifier that ensures maximum uptime availability at an optimum IT environment

### Emergency ventilation fans

Extract hot air from the rack in case of cooling failure

### Smart access control

Card or keypad

### Environment monitoring system

Real-time status reporting

### Lighting and visual alarm

Automated lighting system to ensure the best visibility and visual alarm during operation

### Intelligent PDU

Far more than a power strip: equipped with intelligent power management

(also available with side cooler - see page 3)

MODEL	40014180ZY	40014600ZY	40015990ZY	40078800ZY
Sensible cooling capacity	3.8 kW	3.5 kW	3.8 kW	3.5 kW
Internal condensor	No	Yes	No	Yes
Available space (U)	24 to 27U	22 to 25U	24 to 27U	22 to 25U
Rack Dimensions (W x D x H)	600 x 1400 x 2000 mm - 42U		800 x 1400 x 2000 mm - 42U	
UPS capacity	up to 3 kVA			
IT load	up to 2.7 kW			
Backup time	10 to 15 minutes			
Power distribution module (PDM)	PDM6 input breaker 63A/1P*1			
Reliability	Tier I			
Input voltage	220~240 VAC, 1Ph+N+PE 50/60 Hz			
Cable entry	Top / bottom access			
Emergency ventilation	Top of the rack and front door			
Fire suppression	FM200-J / NOVEC 1230 rack mounted			
Remote management	Cooling system, UPS, access control*, iPDU*, environment setpoint and alarm notification (SMS / email)*			
Remote monitoring	Cooling system, UPS, power usage effectiveness (PUE), iPDU*, IT load, access control*, temperature, humidity and alarm status			
User interface	10.4" touchscreen and remote web interface			
Alarm	Sound and light alarm with SMS* or email* notification			
Mounting	Direct on floor or on raised floor			

## VERSIONS

The Micro Data Centre is a tailor-made and customized solution to fulfil the customers' specific needs and requirements.

\* Additional component is optional.



# DATWYLER MICRO DATA CENTRE (6 OR 10 KVA)

Datwyler's Micro Data Centre is a state-of-the-art, pre-assembled plug-and-play IT infrastructure solution for edge computing that consists of one 42U rack, power distribution, uninterruptible power supply (UPS), cooling system, fire suppression system, air gap sealing and environment monitoring system. Complete data centre deployment within few hours, future-proof with multiple ways to configure power and cooling redundancy to meet the current demand while ready for future technology migration at no cost and less disruption. Datwyler's Micro Data Centre is designed for applications such as edge computing, computing node in remote and branch offices, floor distributor (FD) and smart facilities deploying IoT devices and running AI, AR, VR and automation.

### Fire Suppression (FM200 or Novec 1230)

Rack mounted system to prevent fire hazard from spreading

### Power distribution

Pre-wired power distribution panel with fault isolation to provide surge protection and rapid deployment

### Uninterruptible power supply

Rack mounted with modular configuration to deliver continuous/ purified power and protection to the IT equipment

### Backup batteries

Durable and scalable batteries to provide autonomy during power failures and disruptions

### Equipment rack

42U rack space for IT equipment with side cable management tray

### Dual power input

Pre-equipped with rack mounted automatic transfer switch (ATS) (optional)



### Double glass

For higher cooling efficiency and noise reduction

### In-row cooling system

Modular cooling system (CW & DX) equipped with humidifier that ensures maximum uptime availability at an optimum IT environment

### Emergency ventilation fans

Extract hot air from the rack in case of cooling failure

### Smart access control

Card or keypad

### Environment monitoring system

Real-time status reporting

### Lighting and visual alarm

Automated lighting system to ensure the best visibility and visual alarm during operation

### Intelligent PDU

Far more than a power strip: quipped with intelligent power management

MODEL	40014190ZY	40014630ZY
Input voltage	220~240 VAC, 1Ph+N+PE 50/60 Hz	380~415Vac, 3Ph+N+PE 50/60 Hz
IT load	5.4 kW	9 kW
UPS capacity	6 kVA	10 kVA
Available space (U)	27 to 31U	24 to 28U
Backup time	8 to 16 minutes	11 to 15 minutes
Sensible cooling capacity	5.5 kW	12.5 kW
Power distribution module (PDM)	PDM6 input breaker 63A/1P*1	PDM10 input breaker 125A/3P*1
Rack	SR600X1400 - 42U	
Reliability	Tier I, Tier II and Tier III	
Input voltage	220~240 VAC, 1Ph+N+PE 50/60 Hz	
Cable entry	Top / bottom access	
Emergency ventilation	Top of the rack and front door	
Fire suppression	FM200-J / NOVEC 1230 rack mounted	
Remote management	Cooling system, UPS, access control*, iPDU*, environment setpoint and alarm notification (SMS / email)*	
Remote monitoring	Cooling system, UPS, power usage effectiveness (PUE), iPDU*, IT load, access control*, temperature, humidity and alarm status	
Alarm	Sound and light alarm with SMS* or email* notification	
Dimensions (W x D x H)	900 x 1400 x 2000 mm	
Mounting	Direct on floor or on raised floor	

### VERSIONS

The Micro Data Centre is a tailor-made and customized solution to fulfil the customers' specific needs and requirements.  
\* Additional component is optional.

# DATWYLER MINI DATA CENTRE

Datwyler’s Modular Mini Data Centre is a state-of-the-art, pre-assembled plug-and-play IT infrastructure solution for edge computing that consists of one 42U rack, power distribution, uninterruptible power supply (UPS), cooling system, fire suppression system, air gap sealing and environment monitoring system. Complete data centre deployment within few hours, future-proof with multiple ways to configure power and cooling redundancy to meet the current demand while ready for future technology migration at no cost and less disruption. Datwyler’s Modular Mini Data Centre is designed for applications such as edge computing, small data centre, building distributor (BD), floor distributor (FD), and smart facilities deploying IoT devices and running AI, AR, VR and automation.

### Equipment rack

42U rack space for IT equipment with side cable management tray

### Double glass

For higher cooling efficiency and noise reduction

### In-row cooling system

Primary and redundant modular cooling system (CW & DX), equipped with dual power input in addition to humidifier that ensures maximum uptime availability at an optimum IT environment

### Environment monitoring system

Real-time status reporting

### Power distribution

Pre-wired panel with fault isolation to provide surge protection and rapid deployment

### Emergency ventilation fans

Extract hot air from the rack in case of cooling failure

### Dual power input

Pre-equipped with rack mounted automatic transfer switch (ATS) (optional)



### Uninterruptible power supply

Rack mounted with modular configuration to deliver continuous / purified power and protection to the IT equipment

### Fire suppression (FM200 or Novec 1230)

Rack mounted system to prevent fire hazard from spreading

### Lighting and visual alarm

Automated lighting system to ensure the best visibility and visual alarm during operation

### Backup batteries

Durable and scalable batteries to provide autonomy during power failures and disruptions

### Smart access control

Card or keypad

### Intelligent PDU

Far more than a power strip: equipped with intelligent power management

SPECIFICATIONS			
IT load	up to 36 kW	Remote management	Cooling system, UPS, access control*, iPDU*, environment setpoint and alarm notification (SMS / email)*
UPS capacity	up to 40 kVA		
IT racks	up to 8 (static load 1300 kg / rack)		
Backup time	8 to 15 minutes	Remote monitoring	Cooling system, UPS, power usage effectiveness (PUE), iPDU*, IT load, access control*, temperature, humidity and alarm status
Sensible cooling capacity	up to 50.4 W (CW or DX)		
Input voltage	380~415 VAC   50/60 Hz   3Ph+N+PE*		
Dimensions (W x D x H)	(1500 - 6900) x 1400 x 2000 mm	User interface	10.4" touchscreen and remote web interface
Reliability	Tier I, Tier II and Tier III		
Mounting	Direct on floor or on raised floor		
Cable entry	Top / bottom access	Alarm	Sound and light alarm with SMS* or email* notification
Emergency ventilation	Top of the rack and front door		
Fire suppression	FM200-J / NOVEC 1230 rack mounted(1u/2u)*		

## VERSIONS

The Mini Data Centre is tailor-made and customized solution to fulfil the customers’ specific needs and requirements.  
\* Additional component is optional.

# DATWYLER EMS

## FOR MINI AND MICRO DATA CENTRE

The Datwyler Data Centre Infrastructure Management solution features an innovative approach towards IT infrastructure management, taking into consideration the latest technological advancement in IoT, AI, IP communication and other technologies. The platform allows the DCIM to integrate with a wide range of systems supporting the IT infrastructure. It provides real-time monitoring of environment conditions, access control and energy consumption, activates the alarm in case of an emergency and collects data for planning of preventative maintenance. It comes with a friendly and easy to use graphical user interface that simplifies the complexity and sophistication of the systems running behind.

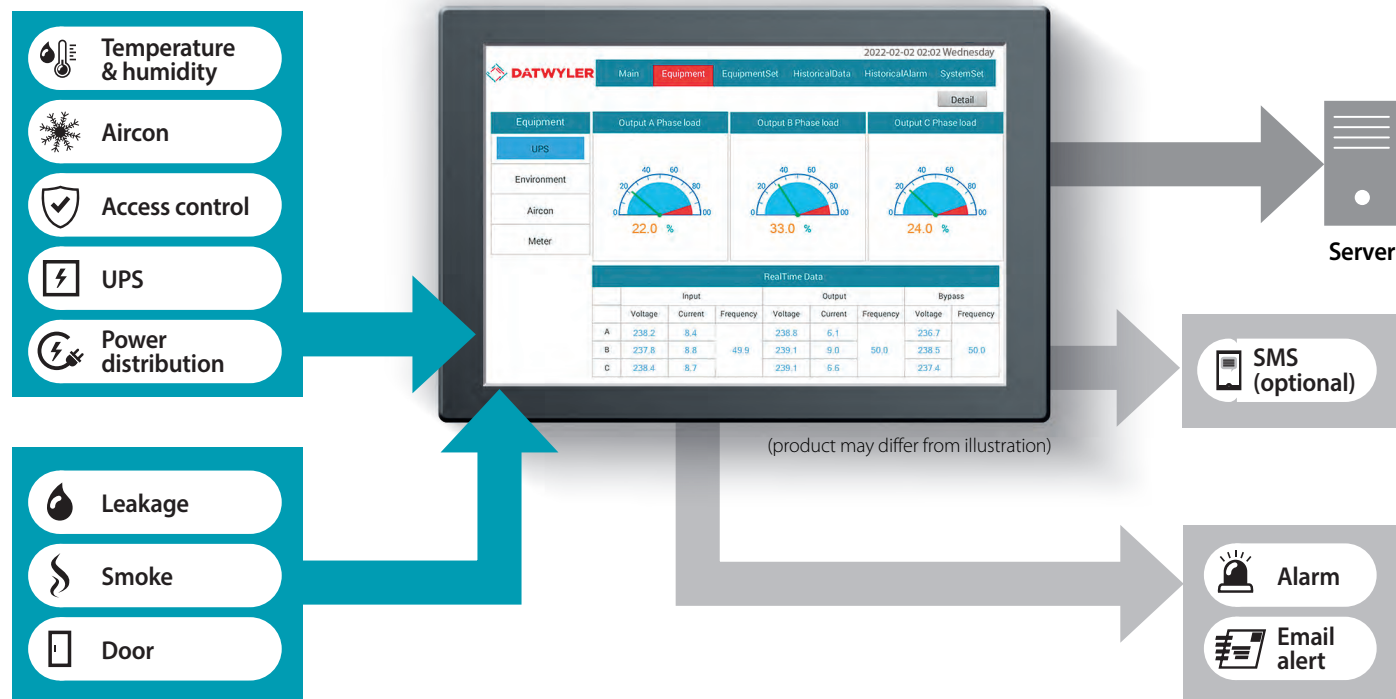
## SYSTEM ARCHITECTURE

Real-time monitoring

Openness & flexibility

Alarm notification

Reports & graphs



## HMI TOUCH SCREEN FEATURES

- . Flat touchscreen with multi-touch function
- . Multilingual Web GUI with integrated logic
- . SNMP enabled ports for auto detection of sensors
- . User access management
- . Integrated interface Ethernet, USB, CAN, analog & digital
- . 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
- . Face recognition system
- . Sim card slot for optional GSM modem
- . Warning alarms for maintenance and critical events
- . Graphical representation of environmental data



We will be happy to advise you!

[www.ITinfra.datwyler.com](http://www.ITinfra.datwyler.com)

