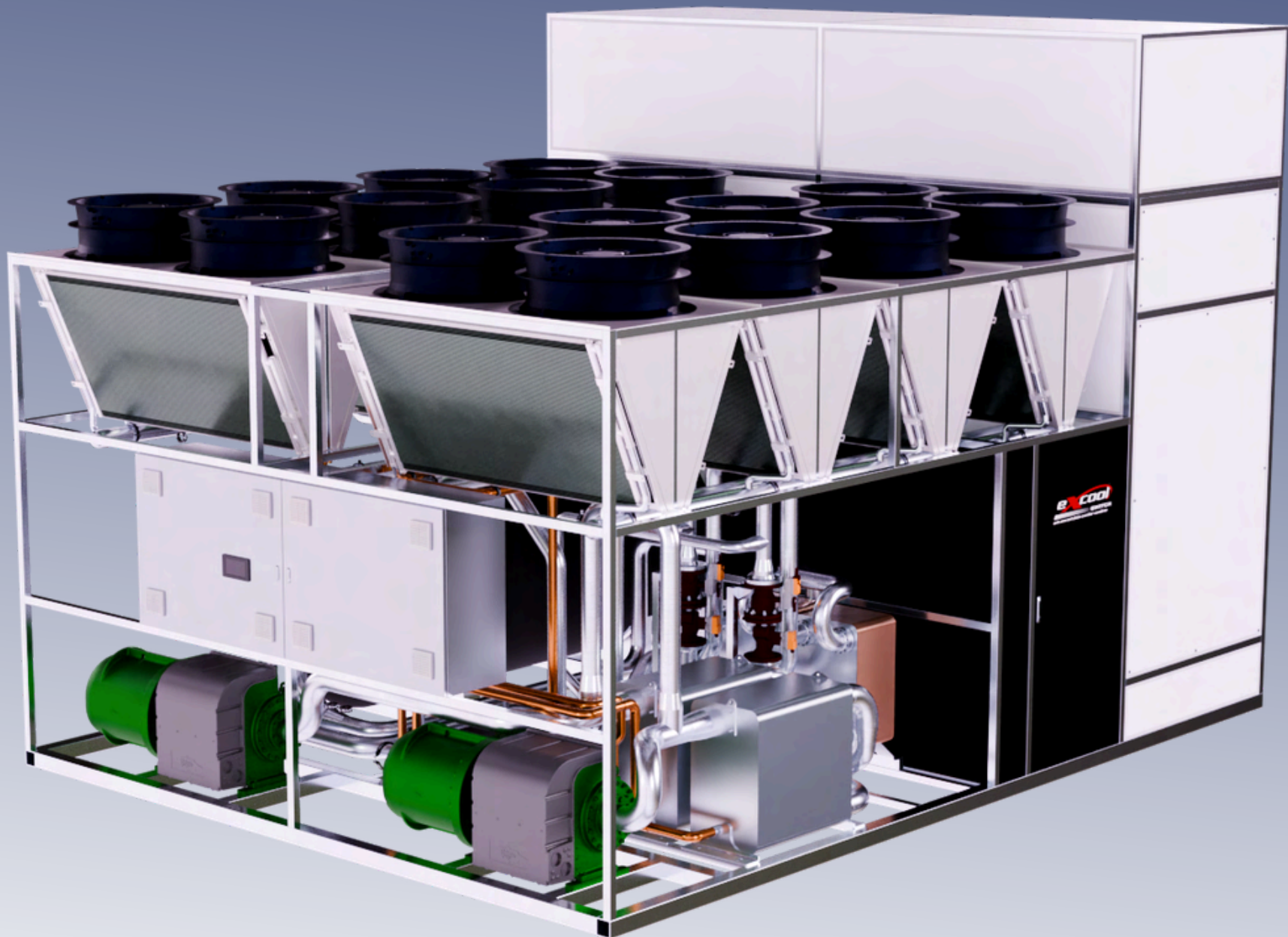


excool

SWITCH

advanced data center cooling



CONTROL AND DISTRIBUTION PANEL

**VARIABLE SPEED DRIVE
(VSD)**



**MINIATURE CIRCUIT BREAKER
(MCB)**



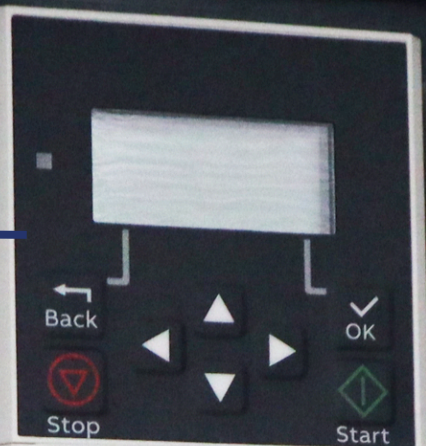
**AUTOMATIC TRANSFER SWITCH
(ATS)**



FUSED ISOLATORS



VARIABLE SPEED DRIVE (VSD)



ABB

INVERTER 1



ACS180

M3
x12

VAR

L1

L2

L3

R-

R+
UDC+

UDC-

T1/
U

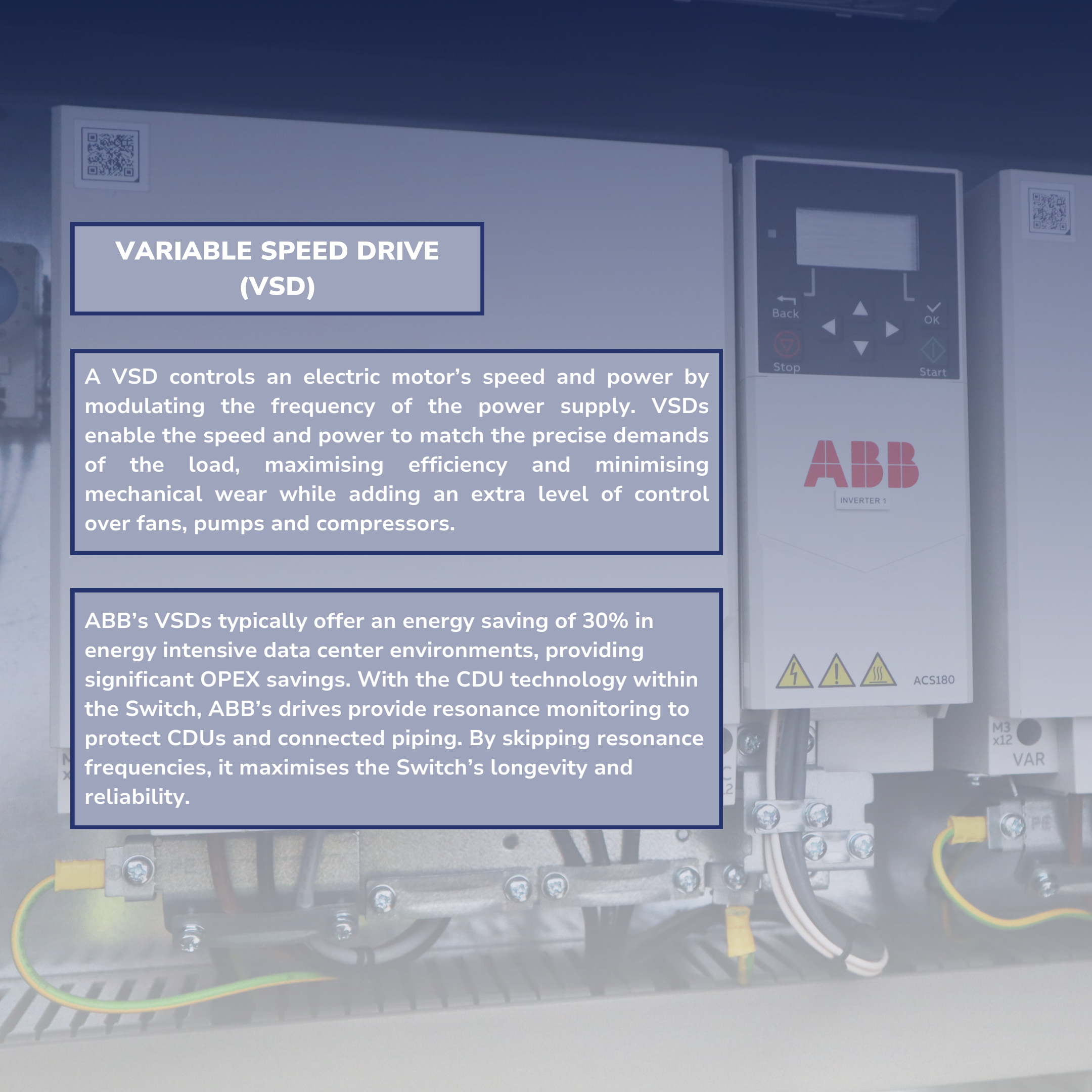
T2/
V

T3/
W

EMC
M3x12

M3
x12

VAR

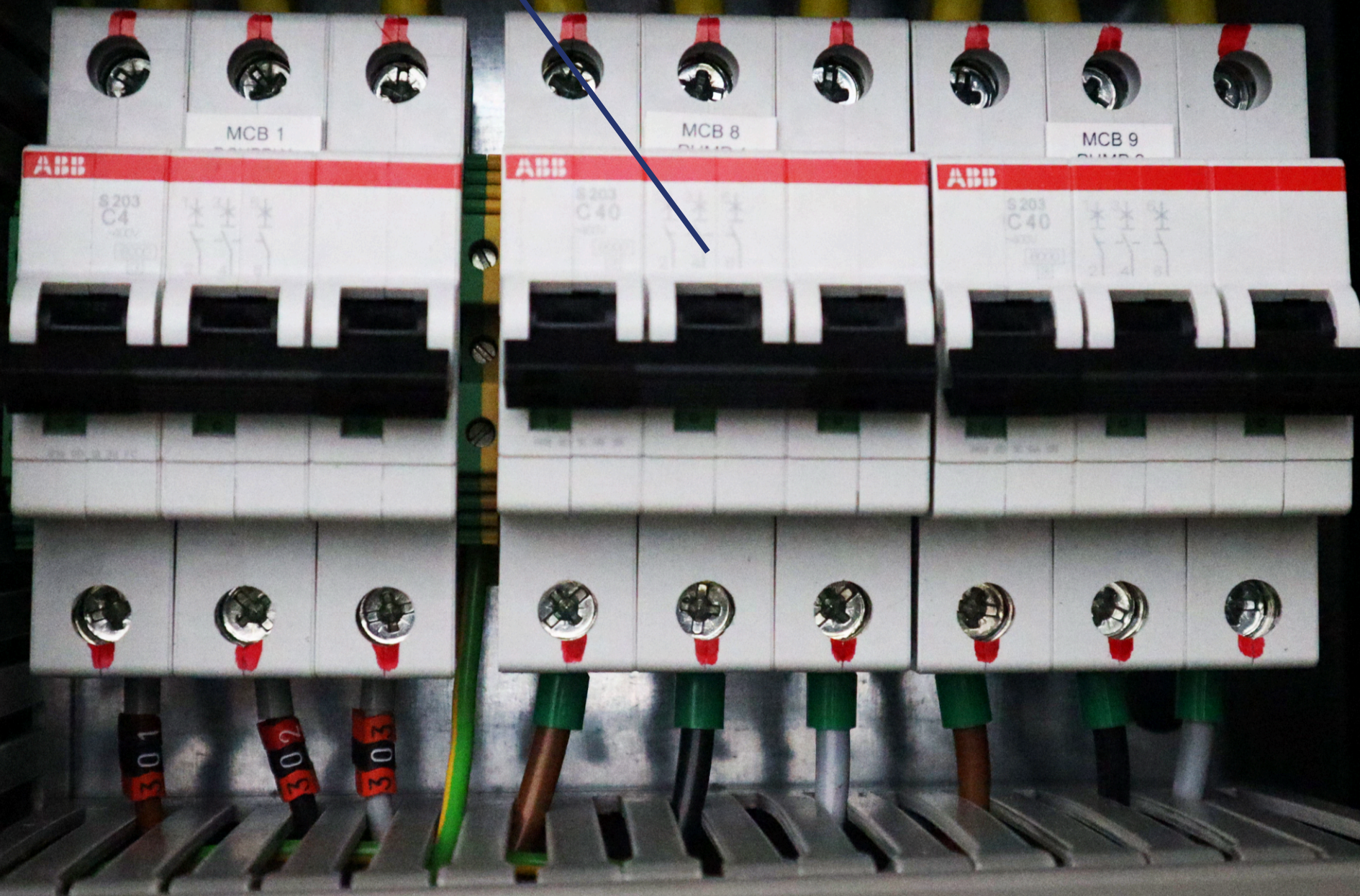


VARIABLE SPEED DRIVE (VSD)

A VSD controls an electric motor's speed and power by modulating the frequency of the power supply. VSDs enable the speed and power to match the precise demands of the load, maximising efficiency and minimising mechanical wear while adding an extra level of control over fans, pumps and compressors.

ABB's VSDs typically offer an energy saving of 30% in energy intensive data center environments, providing significant OPEX savings. With the CDU technology within the Switch, ABB's drives provide resonance monitoring to protect CDUs and connected piping. By skipping resonance frequencies, it maximises the Switch's longevity and reliability.

**MINIATURE CIRCUIT BREAKER
(MCB)**

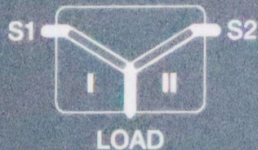


MINIATURE CIRCUIT BREAKER (MCB)

Circuit breakers are an essential safety mechanism of any control panel. They protect electrical installations against overloads and short-circuits. Once a fault is detected, the MCB automatically switches off the electrical circuit to prevent damage to wires and to avoid the risk of fire.

ABB's MCBs provide the highest assurance of safety to the Switch, equipped with two tripping mechanisms: the delayed thermal tripping mechanism for overload protection and the magnetic tripping mechanism for short circuit protection for complete ease of mind.

ABB



AUTO



AUTO

AUTOMATIC TRANSFER SWITCH (ATS)

Auto config

Start

Ok

In-phase monitor

On

Off

Priority

No priority

Source 1

Manual retransfer

On

Off

Dropout $\Delta U / \Delta t$

ΔU 5% / Δt 5%

ΔU 10% / Δt 5%

ΔU 15% / Δt 10%

ΔU 20% / Δt 10%

S1 Failure delay [s]

0

1

2

3

4

5

10

15

20

30

S1 Return delay [min]

30 s

4 min

Generator stop delay

30 s

4 min

Lamp test

Off load test

On load test

Bypass time delay

Auto Alarm reset

I ON

II ON

A / L1

B / L2

C / L3

SOURCE

SOURCE

SOURCE

S1 S2

S1 S2

S1 S2

ABB

ATS

OXA60U3X2QB

IEC 60947-6-1

GB/T 14048.11

Class PC

CE

IEC 60947-6-1

GB/T 14048.11

Class PC

16 160A 30...60Hz

315V 160A AC-31B

415V 160A AC-31B

415V 125A AC-31B

415V 100A AC-31B

415V 80A AC-31B

415V 63A AC-31B

415V 50A AC-31B

415V 40A AC-31B

415V 32A AC-31B

415V 25A AC-31B

415V 20A AC-31B

415V 16A AC-31B

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ABB



AUTO



AUTO

AUTOMATIC TRANSFER SWITCH (ATS)

In a system that controls both liquid and air cooling simultaneously, ensuring that there is no system downtime is critical. To do this, we allow for dual feed inputs. In the event of a power outage, reliable ATSs are needed to transfer the power source to an alternate power feed.

ABB's ATSs give us extra control by allowing us to change switchover thresholds and timings. Tested under extreme conditions, ABB's ATSs ensure complete redundancy through the steady delivery of critical power at all times.

ABB

ATS

OXA60U3X2QB

REC 82547-S-1

GB/T14465-11

Class PC

CE

UL

LISTED

480VAC 60A

Use settings: OXA-100

OXA-24

Suitable for

Cu or Al wire, 60°C/75°C

14-25 AWG

Terminal block: 10-10 10-10

UK

CR

ABB

ABB

ABB

ABB

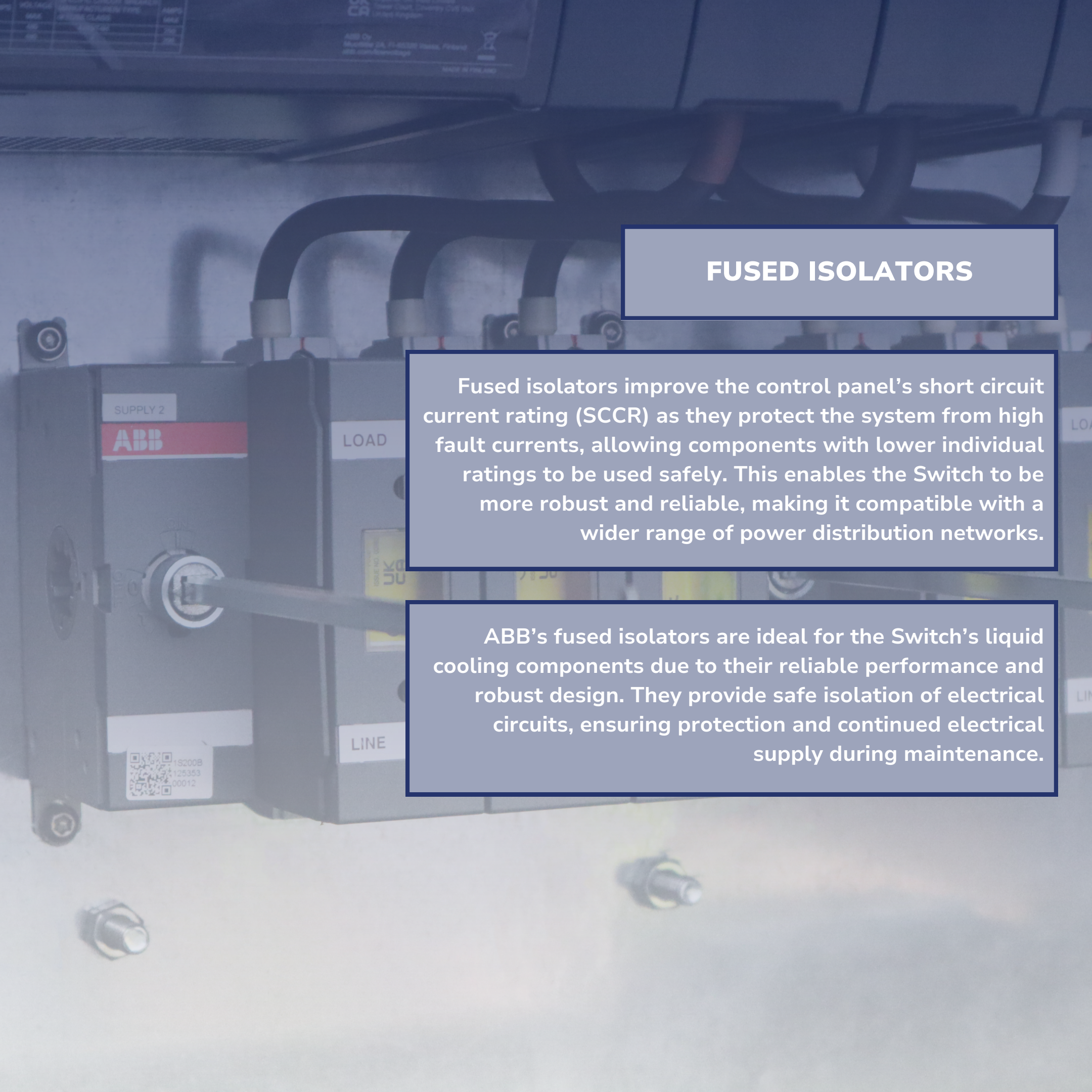

 Street Court Chemistry C/S Ltd
 United Kingdom

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aas.com/en/retillage



MADE IN FINLAND





FUSED ISOLATORS

Fused isolators improve the control panel's short circuit current rating (SCCR) as they protect the system from high fault currents, allowing components with lower individual ratings to be used safely. This enables the Switch to be more robust and reliable, making it compatible with a wider range of power distribution networks.

ABB's fused isolators are ideal for the Switch's liquid cooling components due to their reliable performance and robust design. They provide safe isolation of electrical circuits, ensuring protection and continued electrical supply during maintenance.