

# CATALOGUE XSCALE DATA CENTER

# **INTRODUCTION**

We are proud to introduce xSCALE, an advanced data center solution designed to meet the evolving needs of the information technology market. With a flexible modular architecture, xSCALE optimizes performance and scalability, allowing businesses to easily scale operations according to actual needs.

Integrating virtualization technologies brings efficiency to the operation and management process. Multi-layer security system and smart redundancy ensure your data is always safe and available 24/7.



# WHAT IS XSCALE?

TRE Technology's xSCALE is a product line dedicated to **Modular Data Center** Infrastructures. Designed for energy efficiency and minimal environmental impact, xSCALE offers advanced cooling, renewable energy integration, and scalability.

With xSCALE, TRE Technology is committed to supporting the transition to sustainable data center operations, meet regulatory standards, and achieve long-term operational efficiency.

Ideal solution for businesses aiming to invest in eco-friendly infrastructure while maintaining high performance and scalability.











# Less energy consumption



# Quicker deployment speed



OPTIMIZED TOTAL COST OF OWNERSHIP

# **KEY BENEFITS**

# **FORTIFIED SECURITY**

- IT environment with IP55 rating for excellent dust resistance and noise suppression.
- Anti-condensation design ensures quiet, stable, and secure operations.
- Advanced 3-in-1 access control for enhanced security.
- Optional integration with video surveillance systems.

#### **OPTIMIZED PUE AND GREEN EFFICIENCY**

- Real-time monitoring of PUE (Power Usage Effectiveness) for energy efficiency.
- Precision air conditioning with efficient inverters to support energy savings.
- Integrated IP55-rated cold/hot aisle containment to prevent energy loss from air mixing.

### **SMART MANAGEMENT AND MONITORING**

- Comprehensive sensor communication with a unified, real-time monitoring and management hub to reduce downtime.
- Supports centralized, remote management and continuous monitoring, improving operational flexibility and efficiency.

### **HIGH FLEXIBILITY**

- Modular, LEGO-style design allows easy customization and scalability.
- Prefabricated, plug-and-play setup simplifies deployment and relocation, reducing installation time and effort.
- High compatibility with local management systems for seamless integration with existing BMS infrastructure.

# **PRODUCT OVERVIEW** XSCALE DATA CENTER

# IT RACK SYSTEM



# **HEAVY LOADING CAPACITY**

• Strong frame up to 1800kg loading capacity.

# **IP55 RATED IT ENVIRONMENT**

• Built-in cold-hot aisle sealed cabinet.

## **MULTIPLE ACCESS CONTROL LOCKING**

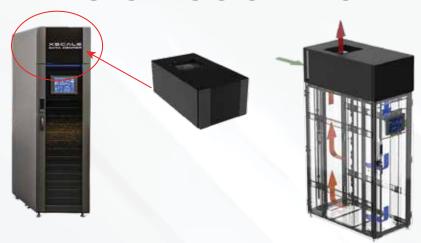
- Mechanical locking with keys.
- Electrotonic locking with RFID.
- 3 in 1 type smart locking.
- Remote door open monitoring and locking management.



# **RICH ACCESSORIES**

- Side door normal type, embedded type.
- Blanking panel, brushes, side sealing kit for better airflow management.
- Horizontal, vertical, top cable management.

# **COOLING SYSTEM: TYPES OF COOLING**

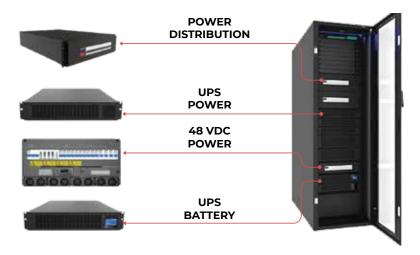


# **TOP PACKAGED-DX COOLING**



# **INROW SPLIT-DX COOLING**

# **POWER SYSTEM**





#### **INTEGRATED POWER SYSTEM**

A compact power system designed to save space and simplify infrastructure by consolidating power components into a single cabinet.



#### **UPS SYSTEM**

A high-frequency, modular UPS (Uninterruptible Power Supply) with easy rack-mounted expansion for reliability and minimal downtime.



#### **DC POWER SYSTEM**

Optional 48V direct current (DC) power solution designed specifically to support communication equipment.



#### **POWER DISTRIBUTION**

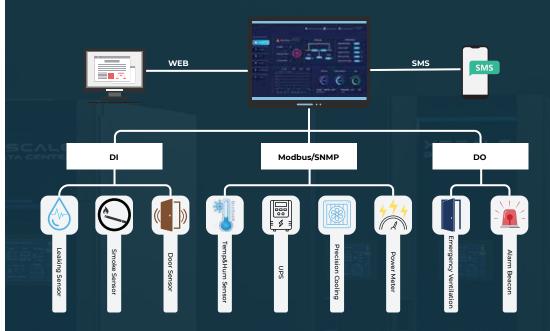
Built-in power protection and distribution system, ready to use without the need for additional on-site installations.



#### **POWER MONITORING**

Continuous tracking of power conditions and usage, with data integrated into a higher-level monitoring platform for better energy management.

# **LOCAL DCIM SYSTEM**



#### COMPREHENSIVE MONITORING HOST

+ A single host system that enables data gathering, visual representation, and automated logical responses.

#### SUPPORTS MULTIPLE COMMUNICATION PROTOCOLS

- + Compatible with UPS/AC systems using protocols: Modbus and SNMP.
- + Real-time video streaming capabilities.
- + Supports data Video Monitoring.
- + Alarm notifications via SNMP or Modbus-TCP by central BMS/DCIM.

#### **FLEXIBLE VIEWING AND CONTROL OPTIONS**

- + Access and manage via a local display screen.
- + Remote access and control through a web interface.
- + Receive alerts via SMS or phone call.
- + Visual and audible alerts with a 3-color lighting system and sound alarms.
- + Remote monitoring available through SNMP or Modbus protocols.

#### PRESET LOGICAL ACTIONS

- + Automatic door and top panel opening in the event of a fire.
- + Cooling system shutoff during fire incidents.

# **OPTIONAL**

# VIDEO SURVEILLANCE



Camera + NVR + Hard Disk

# FIRE FIGHTING SYSTEM



**Rack-mount Fire Agent system & VESDA** 

# **TECHNICAL DATASHEET**

	GENERAL					
	MODEL1	MODEL2	MODEL3	MODEL4	MODEL5	MODELXXX
Part number	XSC-03N	XSC-06E	XSC-10G	Base on BoM	Base on BoM	Base on BoM
Default available IT Space (U)	19	26	35	86	20 IT Rack	Customize
Redundancy Level	N	N	N	N+1	N+1	N/N+1/2N
Power for IT load (kW)	2	3.5	7	5	7	>= 15kW/Rack
Protection level	IP55	IP55	IP55	IP55	IP55	IP55
Weight (kg)	166	310	515			Per Definition
Total dimension (mm)	W600xD1100xH1200	W600xD1200xH2000	W900xD1200xH2000	W2100xD1400xH2000	W3600+ xL7800 xH2200	Per Definition
			POWER SYSTEM			
Input power	220-240V/1P/50-60Hz	220-240V/1P/50-60Hz	220-240V/1P/50-60Hz	380-415V/3P/50-60Hz	380-415V/3P/50-60Hz	380-415V/3P/50-60
PDU	1 x Basic 8Slots	1xBasic 16Slots	1xBasic 16Slots	2 x (2 x Basic 16Slots)	20 x (2 x Basic 16Slots)	Per Definition
UPS Capacity (kVA)	3	6	10	2 x 15	100	Per Definition
UPS Type	Rackmount	Rackmount	Rackmount	Rackmount	Modular rackmount	Rack-mounted
UPS Battery type	VRLA	VRLA	VRLA	VRLA or Lithium	VRLA or Lithium	VRLA or Lithium
UPS Battery capacity	6Pcs 12V/9AH	16Pcs 12V/9AH	16Pcs 12V/9AH	2 x (40Pcs 12V/9AH)	15 mins	Per Definition
Surge Protection	Yes	Yes	Yes	Yes	Yes	Yes
Power Distribution Management	Rackmount	Rackmount	Rackmount	Rackmount	Rackmount	Rackmount
		(	COOLING SYSTEM	4		
Cooling capacity (kW)	2	3.5	7.6	17.6	100	Per Definition
Mount type	Тор	Тор	Row	Row	Row	Row
Cooling type	Fan Ventilation	Packaged DX	Packaged DX	Split DX	Split DX	Split DX
Emergency Ventilation	Yes	Yes	Yes	Yes	Yes	Yes
		мс	NITORING SYST	EM		
Local display	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Display
Remote Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access
Reporting Protocol	Modbus-TCP	Modbus-TCP	Modbus-TCP	Modbus-TCP	Modbus-TCP	Modbus-TCP
UPS Management	Yes	Yes	Yes	Yes	Yes	Yes
Cooling Management	Yes	Yes	Yes	Yes	Yes	Yes
Temperature & Humidity	Yes	Yes	Yes	Yes	Yes	Yes
Fire Sensor	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke
Water Sensor	Yes	Yes	Yes	Yes	Yes	Yes
Door Sensor	Front/Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear
			SECURITY SYSTEM	М		
Access control	RFID/Finger/PIN	RFID/Finger/PIN	RFID/Finger/PIN	RFID/Finger/PIN	RFID/Finger/PIN	RFID/Finger/PIN
Video surveillance	Optional	Optional	Optional	Optional	Yes	Optional
	- Special	- Special	FIRE SYSTEM	- CPSIONAL	.53	- Cptional
	EMOSS D. C. C. C.	E14000 D		514000 D		
Fire Extinguisher	FM200 Rack Module (Not Include/Optional	FM200 Rack Module (Not Include/Optional)	FM200 Rack Module (Not Include/Optional)	FM200 Rack Module (Not Include/Optional)	FM200 or Novec 1230	FM200 or Novec 123
Early Detection	VESDA (Not Include/Optional)	VESDA (Not Include/Optional)	VESDA (Not Include/Optional)	VESDA (Not Include/Optional)	VESDA	VESDA

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