



Container Data Center solution

>> Foundation of Digital Future



Efficiency Prefabricated

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Container Data Center Solutions

We Optimize Every Aspects of Container DC Designs.

As one of the pioneer in modular data center, we are dedicated to exploring innovative solutions to provide more energy efficient, economical and flexible configurations, and better match to your current and future needs.



Solution Benefits

Maximized IT Space

- 8 racks in 20F container, and 18 racks in 40F
- 12 immersion racks in 20F container, and 24 immersion racks in 40F.
- standard wall mount cooling will not occupy rack space.
- Sliding racks for easier service operations of IT.
- Hybrid power system with UPS / Power panel / battery in same rack.

Optimized Energy Efficiency

- Various efficient inverter precision air conditioning options provide energy-saving solutions.
- Multiple free cooling options including indirect free cooling, or direct air free cooling.
- Cold aisle containment no hot/cold air mix.
- High efficient components including inverter compressors, EC fans and green refrigerant.

Rapid Deployment

- Rugged designs suitable for all environments and applications. Outdoors, rooftops, warehouses, oil rigs, remote sites, can provision in any location with no pre-investment.
- All-in-one design, factory prefab and commissioning enable fast deployment.

High Flexibility

- LEGO-style modular design allows for easy customization and expansion.
- From all-in-one container pod to container park, invest as you grow.

Optimized Total Cost of Ownership

35%

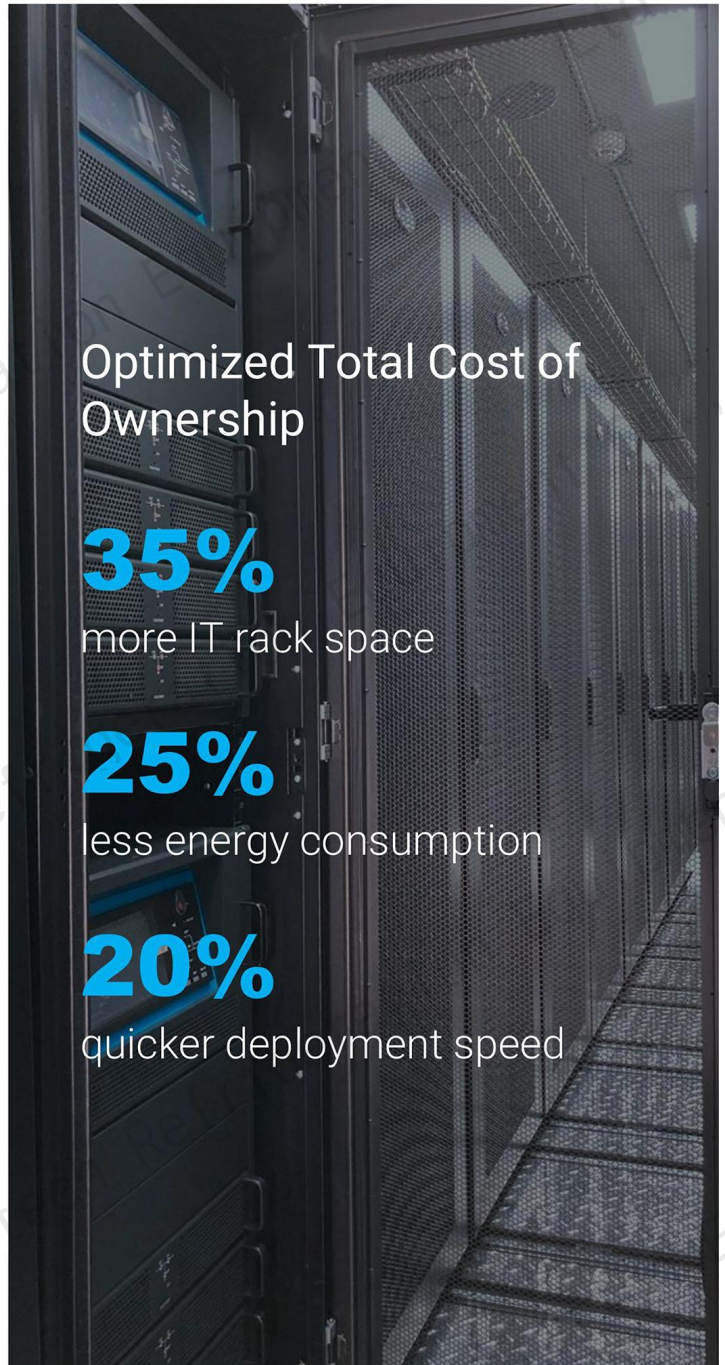
more IT rack space

25%

less energy consumption

20%

quicker deployment speed



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Maximized Space Performance, Optimized ROI.

With the increased demand for IT infrastructure driven by digital transformation, more and more customers begin to focus on the need for high-density space utilization. Compare with other solutions, Shenglin standard design with wall mount cooling can provide more than 35% additional IT rack space, up to 8 racks per 20ft, 18 racks per 40ft container.



8 racks

V

Horizontal row with sliding racks and package wall cooling.



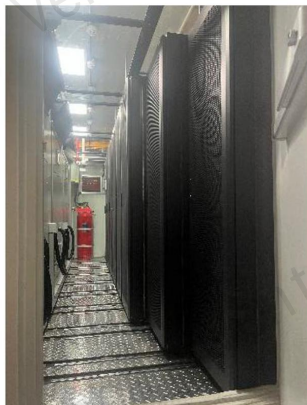
4 racks

PEERS

Vertical rows with split row cooling and condenser section

Maximized Operation Space

Rack sliding kit for better service area in front and rear of rack.



Packaged Shipment & Installation

The Wall Mount Cooling stays inside the container during transportation, and slide out when installing.



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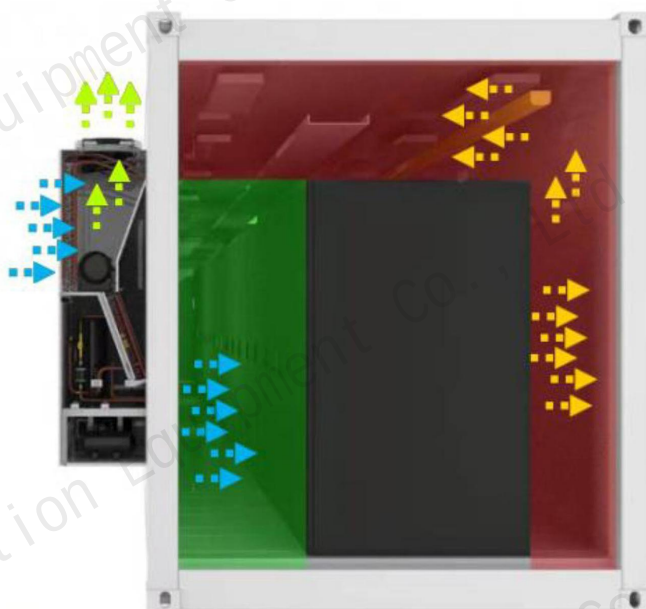
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The Eco Efficiency, Integrated and Prefabricated.

- Precision cooling system with high efficient EC fan, inverter compressor, EEV and smart controller system.
- CFD optimized cold/hot air containment system design to match airflow precisely and support high density applications.
- Optional direct / indirect free cooling system to lower down data center PUE.
- Prefabricated and pre-tested system to deliver designed efficiency with minimum onsite installation and commission jobs.
- Precision cooling system designed with Green refrigerant and no water consumption for cooling effects.



All Types of Cooling Options

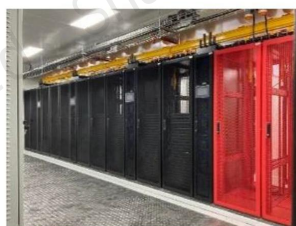
- Wall mount / top mount / Inrow / room cooling system.
- R134a green refrigerant suitable for global application.
- Special design working upto -40C~55C ambient temperature.



Side mount cooling solution



Top mount cooling solution



Inrow cooling solution



Room cooling solution

Green Free Cooling Systems

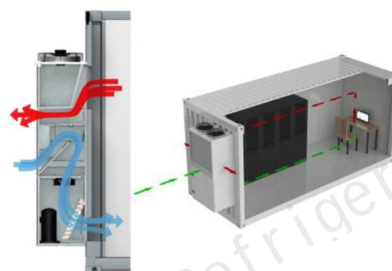
Indirect Free Cooling with Refrigerant Pump Technology

- PUE low to 1.2
- Peak EER goes upto 28.9 in cooler seasons.
- Independent internal and external loops, no dust / moisture concern.



Direct Free Cooling with Hybrid Free Air Technology

- PUE low to 1.1
- Compatible with wall cool and top cool system.



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Modular Power System, Stay Protected for Every Minutes.



- Standard modular design UPS, rectifier, PDU, battery, PDM(power distribution panel),etc.
- Easy to be integrated into compact cabinets to provide efficient, reliable, and flexible power protection.
- Open to compatible with other brands product, can be well integrated into local DCIM system.
- Multiple protection functions, such as overload, short circuit, over voltage, under voltage and bypass.



OVERLOAD
PROTECTION.



OVER VOLTAGE
PROTECTION.



SHORT CIRCUIT
PROTECTION.



SURGES
PROTECTION.

UPS Power System

- Rack mount / modular rack mount / Floor mount / Tower type UPS.
- Highly scalable online dual-conversion product with dual DSP technology ensure high performance.
- Intelligent battery management features to extend cost-effective VRLA battery life.
- SNMP+USB+RS-232 multiple communications, support remote monitoring.
- 3-600KVA wide range of specifications, suitable for different scale applications.



48VDC Power System

- Standard 19" rack mount design.
- Rectifier module / Solar module for options.
- adopts hot swap technology for Plug and Play installation.
- High temperature working up to 75C.
- Equipped with high performance Lithium-iron battery, provide reliable protection
- Support remote monitoring with multi-channel serial port, dry contact, and network interface output.



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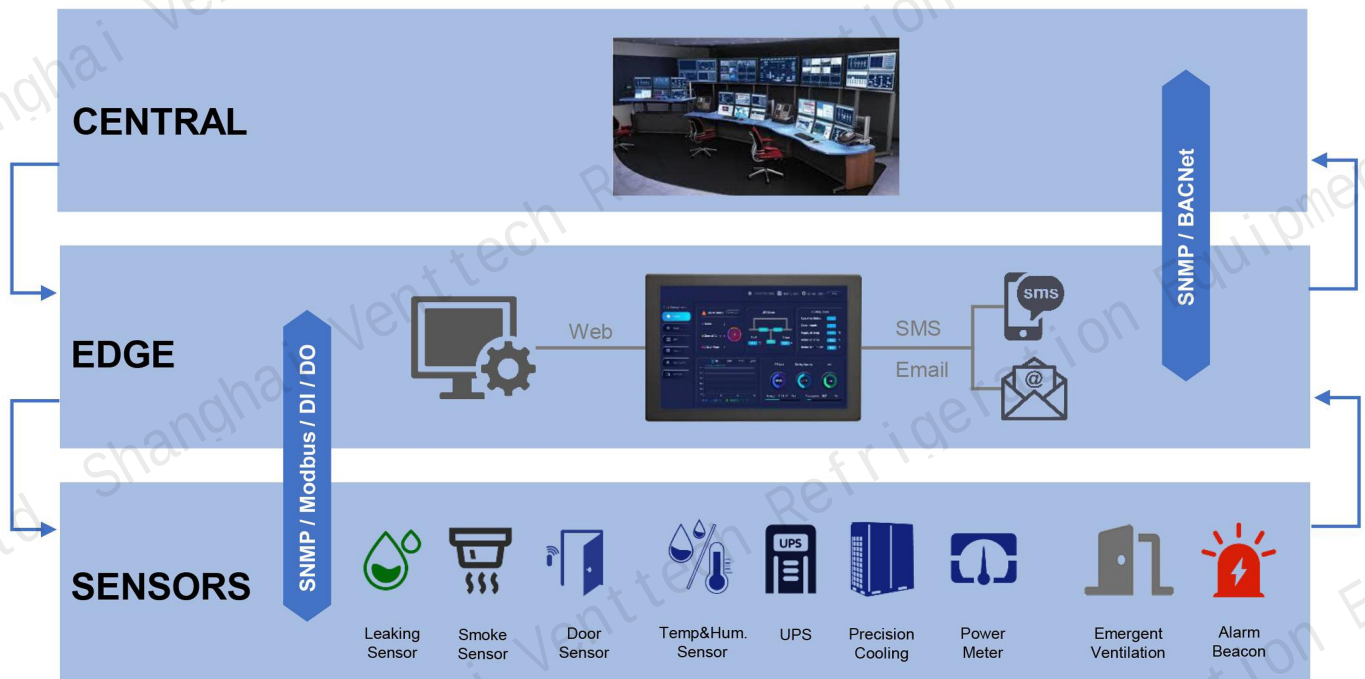
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Container Data Center Solutions



Comprehensive Monitoring, Support Your Smarter Decisions.

Smart DCIM System communicates with all key aspects through a full range of sensors to monitor the status of the infrastructure. Real-time alerts and notifications allow operators to proactively identify and address any issues promptly. Intelligent monitoring platform open to integrated with your BMS system, achieve remote centralized manage and monitoring, Help organizations effectively manage and monitor their containerized infrastructure, ensuring optimal performance, resource utilization, and security.



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All Types of Configurations, Match Your Various Applications.

Modular all-in-one solution composed of all kinds of key aspects, such as standard ISO container, IT rack, precision cooling, UPS, monitoring system, access control system, fire system, etc. Bring you one-stop shop for complete peace of mind.

Container Construction

- Build from scratch with ISO container standard.
- Salt spray standard: 750h.
- Thermal protected with rock wool.
- withstand 30 m/s wind speed under working condition.
- **Fire protected** options up-to 120min.
- **Bullet proof** options for high security sites.
- **C5M High Corrosion Protection** options for coastal sites
- IP55 water/dust protection.
- Operating temperature: -40°C~55°C.



Corrosion Protection



Bullet Proof



Fire Protection

Precision Cooling System



- 5.5-31.5kW wall mount cooling as standard design
- 5.6-90kW Inrow cooling options
- 5.5-122.9kW Room cooling options
- Work up-to 55C ambient temperature.
- All types of free cooling options.

IT Rack System



- 1800kg static loading capacity IT racks.
- widths(600/800mm) ,depths(1100/1200mm) options
- Optional with cold/hot aisle containment systems.
- Sliding in front/rear direction for easier service.
- Optional with access control for better management.

UPS Power System



- 3-60kVA rack UPS as standard design
- 60-200kVA modular UPS rack mount
- 250-600kVA modular UPS floor mount
- 60A-1200A 48VDC rectifier
- VRLA / Lithium battery by configuration.
- Basic/Smart PDU per configurations.
- Built in power distribution panels configurable to T1~T4 uptime level.

DCIM System



- Full communication to UPS, cooling, power panel, and all type of sensors.
- Integration with access control system.
- Integration with video surveillance system.
- Local display and settings on touch screen, 10/21/42inch display options.
- Remote accessible from web, SMS, Email, Modbus-TCP. Optional with SNMP.

Access Control System



- IP55 3 in 1 type (pin/password/fingerprint) access control protection.
- Management by standalone software.
- Integration with DCIM system.

Fire Protection System



- Early fire detection system.
- Smart fire panel for easier fire detection and management.
- Fire agent of Novec1230/FM200

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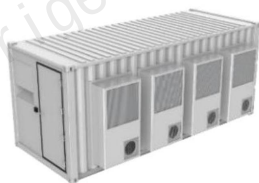
Flexible Expansion, from Container Pod to Container Park.

As data center leader, we integrate modular design concept into every key aspect of Shenglin solution. from single container data center to multiple container modular architecture, we provide you with sustainable solutions to invest as you grow.

All in One Solution



10FT



20FT

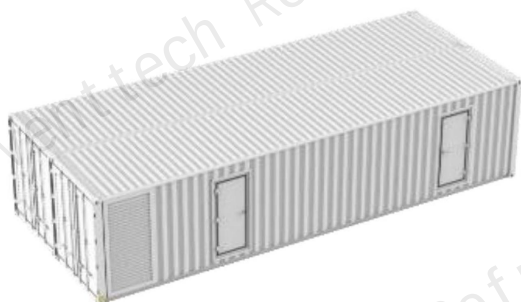


40FT

All in one Container MDC fully integrated with standard rack, wall mount cooling, AC/DC power, battery, power distribution, security, monitoring and fire systems.

IP55 protection and thermal insulated for global deployment -35C ~ 55C ambient.

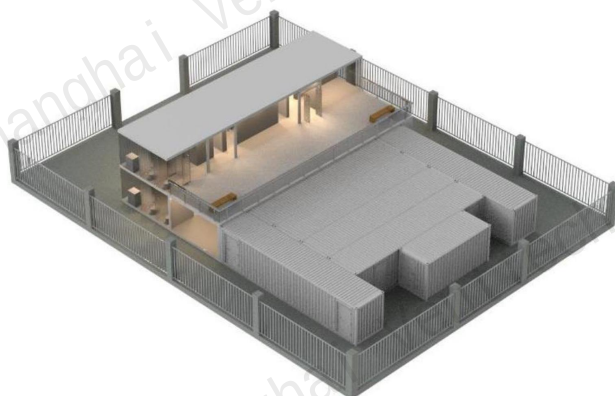
Dual Bay Solution



Assembly from 2 containers, integrated with standard rack, wall mount cooling, AC/DC power, battery, power distribution, security, monitoring and fire systems.

IP55 protection and thermal insulated for global deployment -35C ~ 55C ambient.

Multi Containers Solution



Assembled from several containers, including lobby, function room, monitoring room, power room, modular data hall, etc.

IP55 protection and thermal insulated for global deployment -35C ~ 55C ambient.

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Technical Data | IEC Power – 380-415/3P/50~60Hz

Product Model	10-C03	20-C03	30-C08	60-C08	80C18	150-C18	160-C36	320-C36	Customized
IT Rack No.	2	2	6	6	16	15	32	30	Per Definition
Power Density -kW/Rack	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	Per Definition
Redundancy	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N/N+1/2N
Width -mm	2228	2228	2438	2438	2438	2438	4876	4876	Per Definition
Depth -mm	3530	3530	6058	6058	12192	12192	12192	12192	Per Definition
Height -mm	2500	2500	2896	2896	2896	2896	2896	2896	Per Definition
Weight -kg	4170	4400	8135	8755	16475	17845	32380	36000	Per Definition
IP Level	IP55	IP55	IP55	IP55	IP55	IP55	IP55	IP55	IP55
Input Power	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	380-415V/3P /50-60Hz	Per Definition
Power Section									
UPS -kVA	2* 10	3* 10	3* 15	5* 15	5* 25	7* 25	8* 25	7* 50	3 – 500kVA
UPS Mount Type	Rack	Rack	Rack-Modular	Rack-Modular	Rack-Modular	Rack-Modular	Rack-Modular	Floor-Modular	Rack/Floor
Standard UPS Battery	15min@10kW	15min@20kW	15min@30kW	15min@60kW	15min@80kW	15min@150kW	15min@160kW	15min@300kW	<= 4 hour
AC PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Per Definition
-48VDC -A	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	10 – 600A
Standard 48VDC Battery	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	<= 4 hour
48VDC Power Distribution	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Per Definition
Cooling Section									
Cooling Type	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged/Split
Mount Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Row/Room/Wall
Capacity-kW	2* 12.5	2* 21.2	3* 17.5	4* 21.2	5* 21.2	8* 21.2	10* 21.2	18* 21.2	1.5 – 200.0kW
DCIM Section									
Local Display	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen
Remote Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access
Reporting Protocol	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP
UPS Mgmt.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cooling Mgmt.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature Humidity Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fire Sensor	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke
Water Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Section									
Access Control	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger
Video Surveillance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fire Fighting Section									
Fire Extinguisher	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230
Early Detection	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA

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Technical Data | US Power – 208-230/3P/50~60Hz

Product Model	10-C03	20-C03	30-C08	60-C08	80C18	150-C18	160-C36	320-C36	Customized
IT Rack No.	2	2	6	6	16	14	32	30	Per Definition
Power Density -kW/Rack	5.0	10.0	5.0	10.0	5.0	10.0	5.0	9.0	Per Definition
Redundancy	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N/N+1/2N
Width -mm	2228	2228	2438	2438	2438	2438	4876	4876	Per Definition
Depth -mm	3530	3530	6058	6058	12192	12192	12192	12192	Per Definition
Height -mm	2500	2500	2896	2896	2896	2896	2896	2896	Per Definition
Weight -kg	4170	4400	8135	8755	16475	17845	32380	36000	Per Definition
IP Level	IP55	IP55	IP55	IP55	IP55	IP55	IP55	IP55	IP55
Input Power	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	200-230V/3P /50-60Hz	Per Definition
Power Section									
UPS -kVA	2* 10	3* 10	4* 10	5* 15	7* 15	10* 15	14* 15	20* 15	3 – 500kVA
UPS Mount Type	Rack	Rack	Rack-Modular	Floor-Modular	Floor-Modular	Floor-Modular	Floor-Modular	Floor-Modular	Rack/Floor
Standard UPS Battery	15min@10kW	15min@20kW	15min@30kW	15min@60kW	15min@80kW	15min@140kW	15min@160kW	15min@270kW	<= 4 hour
AC PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Smart/ Basic PDU	Per Definition
-48VDC -A	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	10 – 600A
Standard 48VDC Battery	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	<= 4 hour
48VDC Power Distribution	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Per Definition
Cooling Section									
Cooling Type	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged DX	Packaged/Split
Mount Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Row/Room/Wall
Capacity-kW	2* 12.5	2* 21.2	3* 17.5	4* 21.2	5* 21.2	8* 21.2	10* 21.2	18* 21.2	1.5 – 200.0kW
DCIM Section									
Local Display	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen
Remote Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access	Web Access
Reporting Protocol	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP	Modbus/SNMP
UPS Mgmt.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cooling Mgmt.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature Humidity Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fire Sensor	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke	Smoke
Water Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Section									
Access Control	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger	RFID/Pin/Finger
Video Surveillance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fire Fighting Section									
Fire Extinguisher	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230	FM200 / Novec1230
Early Detection	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA	VESDA

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We believe the world is
being totally connected.
The digital connections are
creating smart intelligence
and a **better future**.

We design and deliver
green efficient data center
infrastructure products to
build foundation of digital
future.

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