SmartCabinet™2-ECO

SmartCabinet™ Family

Outdoor Condenser

2150mm

1200mm

600mm

**SmartCabinet™ ECO
600mm**

2000mm

1200mm

600mm

**SmartCabinet™ Split Unit
600mm**

2000mm

1200mm

800mm

**SmartCabinet™ Split Unit
800mm**

2000mm

1100mm

800mm

**SmartCabinet™ Premium
800mm**

VERTIV.

2

Replacement
Replace SmartCabinet™2-Integrated with **SmartCabinet™ 2-ECO**

- Full containment (600mm width) with glass door design
- Supports up to 18U IT usable space
- Double conversion UPS with internal battery module
- Supports up to 3kW IT system
- Switched rack PDU
- Built-in outdoor condenser
- Features cooling modulation, 30-100%
- 9" inch touch screen HMI display
- Centralized monitoring via RDU
- Built-in sensor system to monitor the cabinet
- Smart lock system
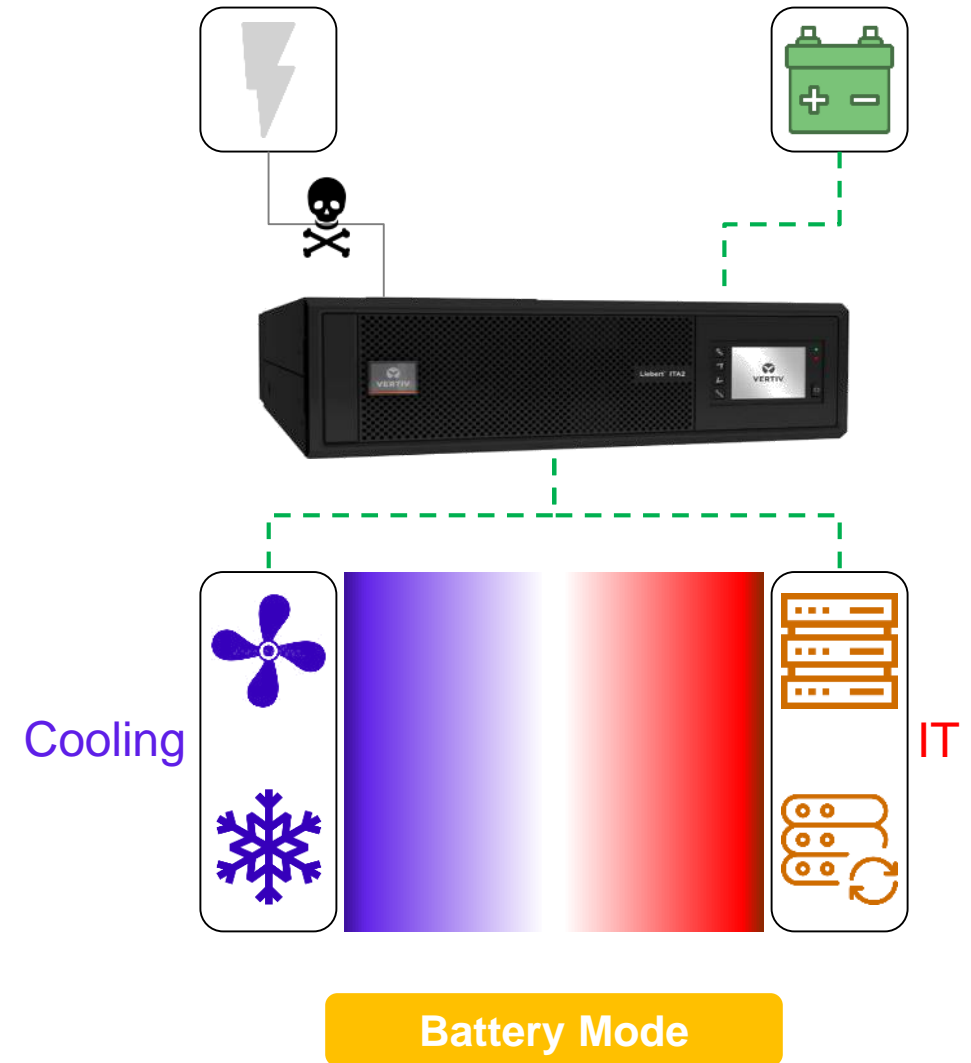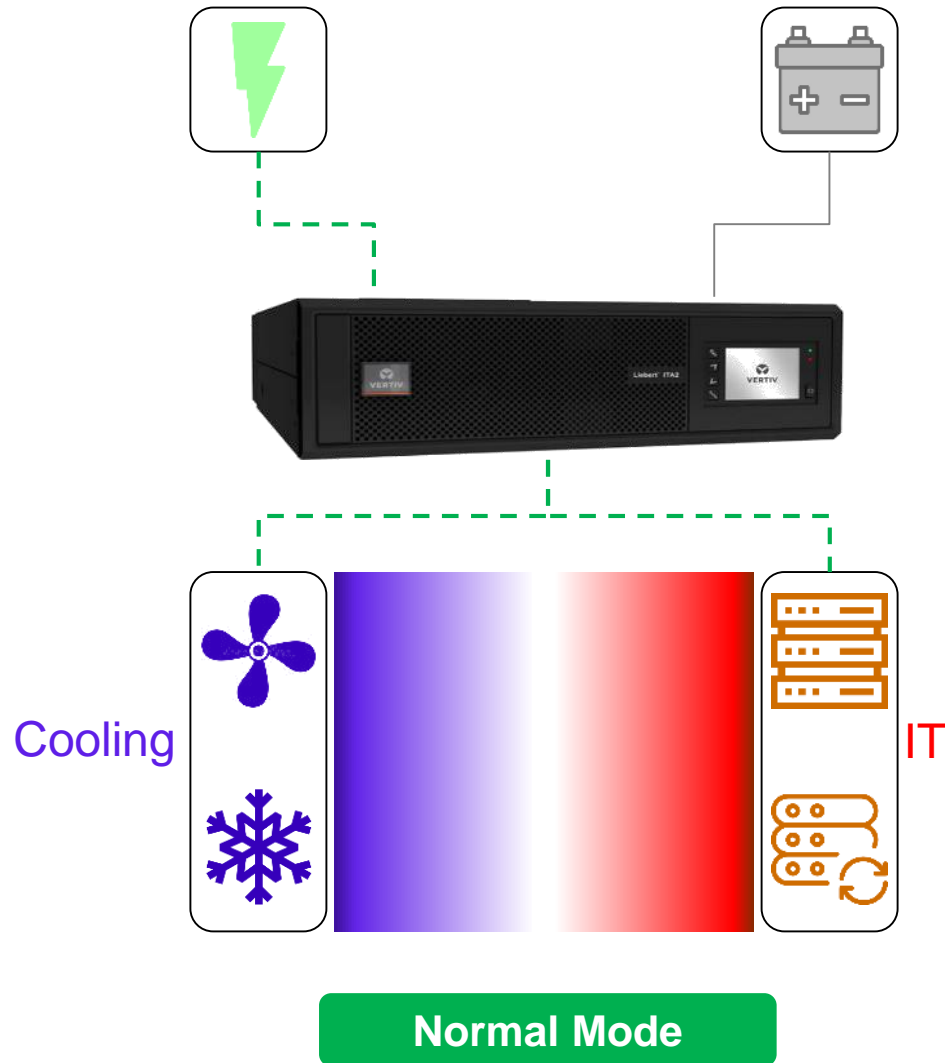
**SmartCabinet™2-Integrated
600mm**

- Full containment (600mm width) with glass door design
- **Supports up to 24U IT usable space (NEW)**
- Double conversion UPS with internal battery module
- Supports up to 3kW IT system
- Switched rack PDU
- **Self-contained cooling system (NEW)**
- **Cooling high availability (NEW)**
- Features cooling modulation, 30-100%
- **Features ECO Mode (NEW)**
- 9" inch touch screen HMI display
- Centralized monitoring via RDU
- **Tri-color LED lighting (NEW)**
- Built-in sensor system to monitor the cabinet
- Smart lock system
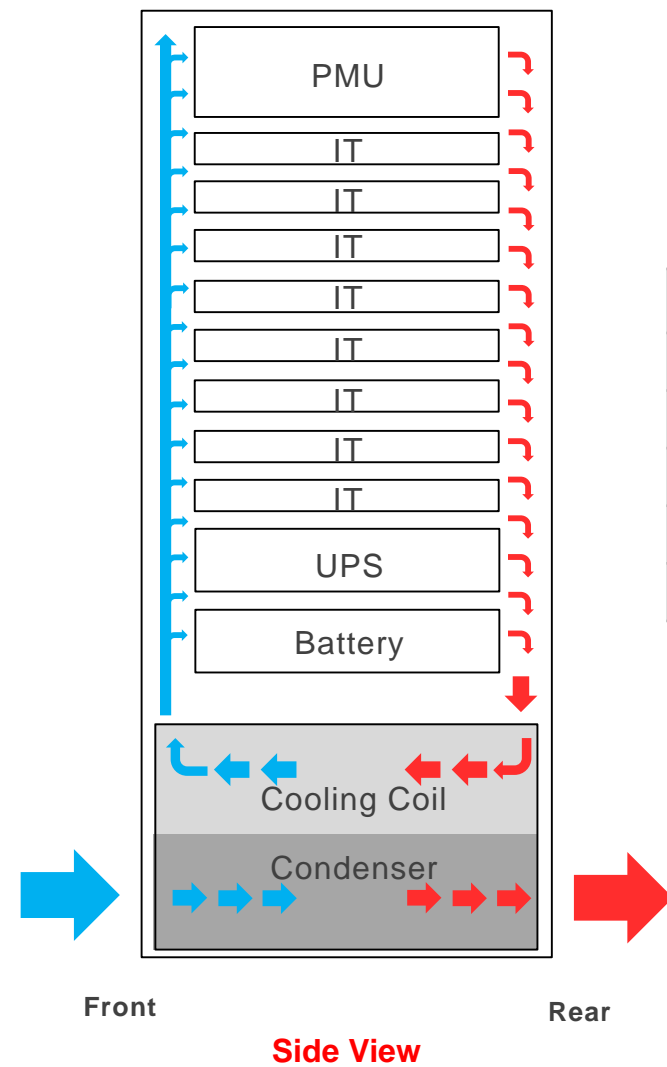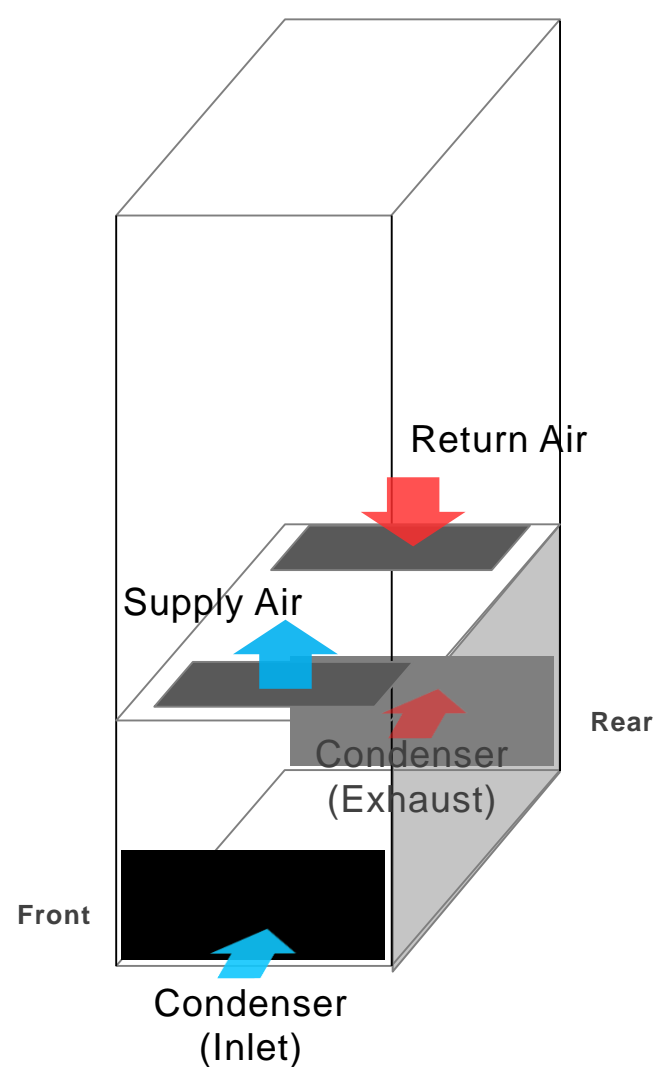
**SmartCabinet™2-ECO
600mm**

SmartCabinet™2-E

Tri- Color Lighting

ECO Fan Module
Enables ECO mode and activates intelligently. Provides emergency ventilation in the event of overheating or cooling unit failure

LCD Touchscreen Panel
User-friendly display enables easy access to power, cooling, environment and security information.

Power Management Unit (PMU)
Built-in PMU provides power management and distribution to UPS, cooling unit and rack PDU. Comes with surge protection device.

Rack Power Distribution Unit (rPDU)
Features branch level metering and remote on/off control of individual receptacles.

Centralized Management & Monitoring
Enables central management of all intelligent components within rack.

Blanking Panel

Environmental Sensor
Report critical environmental information and alarm notification. Ensure IT equipment is kept in desired condition.

Smart Lock
Provides secure door access via ID card, web interface and key.

Air Inlet

UPS and Internal Battery
On-line double conversion UPS with internal battery module ensures clean power feeding to critical IT equipment. Power Factor: 1.0.

Cooling Unit
Integrate cooling coil and condenser within the cooling unit for complete heat exchange. Provides variable cooling capacity directly to IT equipment.

Water Leak Detector

4

SmartCabinet™2-E- High Availability (HA)

Cooling

IT

Normal Mode

Cooling

IT

Battery Mode

SmartCabinet™2-E - Integrated Cooling Unit

Return Air

Supply Air

Condenser (Exhaust)

Rear

Front

Condenser (Inlet)

PMU

IT

IT

IT

IT

IT

IT

IT

IT

UPS

Battery

Cooling Coil

Condenser

Front

Rear

Side View

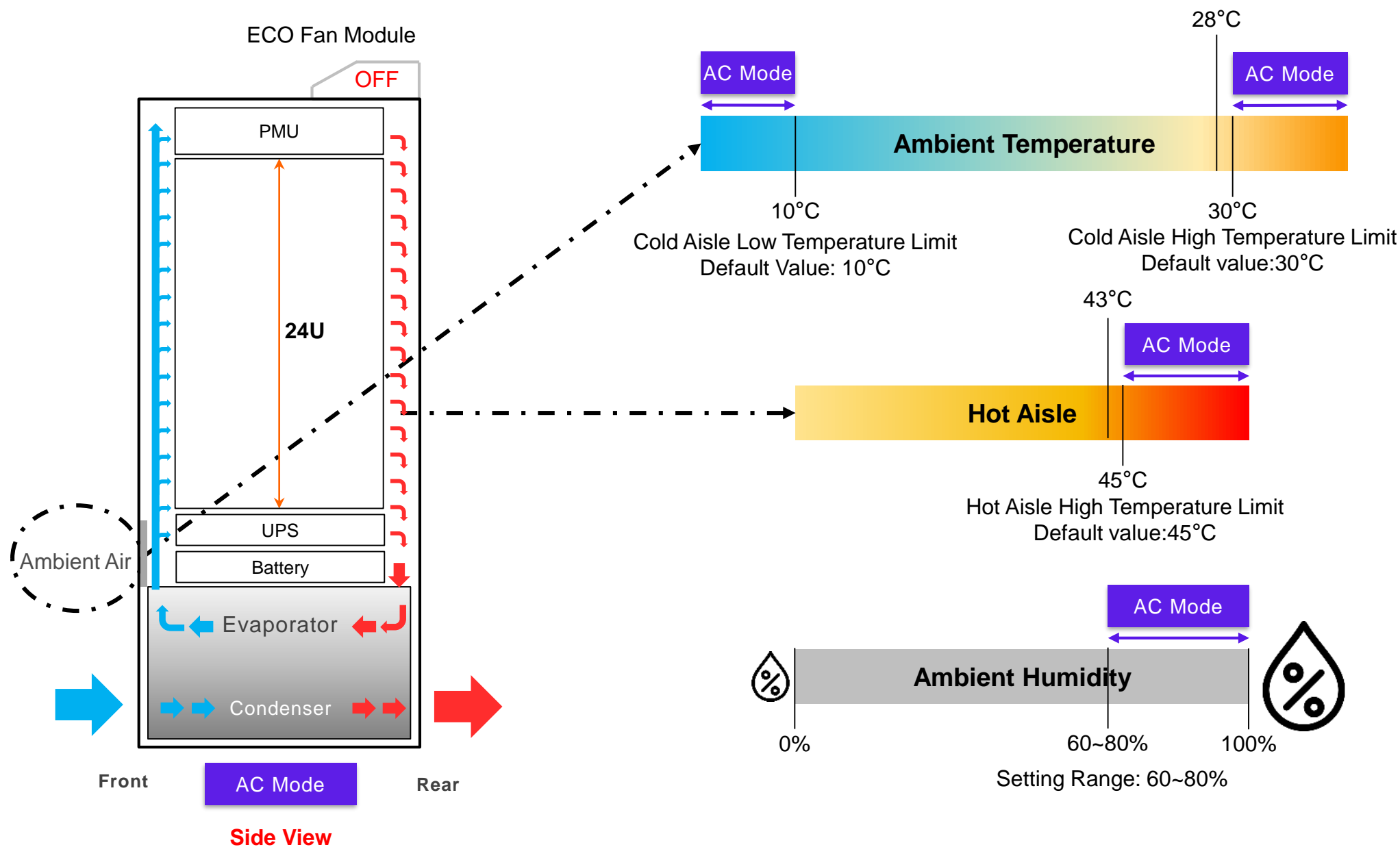| Integrated Cooling Unit	
Cooling Capacity (W)	900 ~ 3500
Dimension (mm)	439 (W) x 442 (H) x 978 (D)
Fan Speed (CMH)	350 ~ 750
Refrigerant	R410A
Certificate	CE/CCC

SmartCabinet™2-E – Service Area

1000mm

600mm

Rear Door

1200mm

1000mm

1000mm

600mm

Front Door

600mm

1200mm
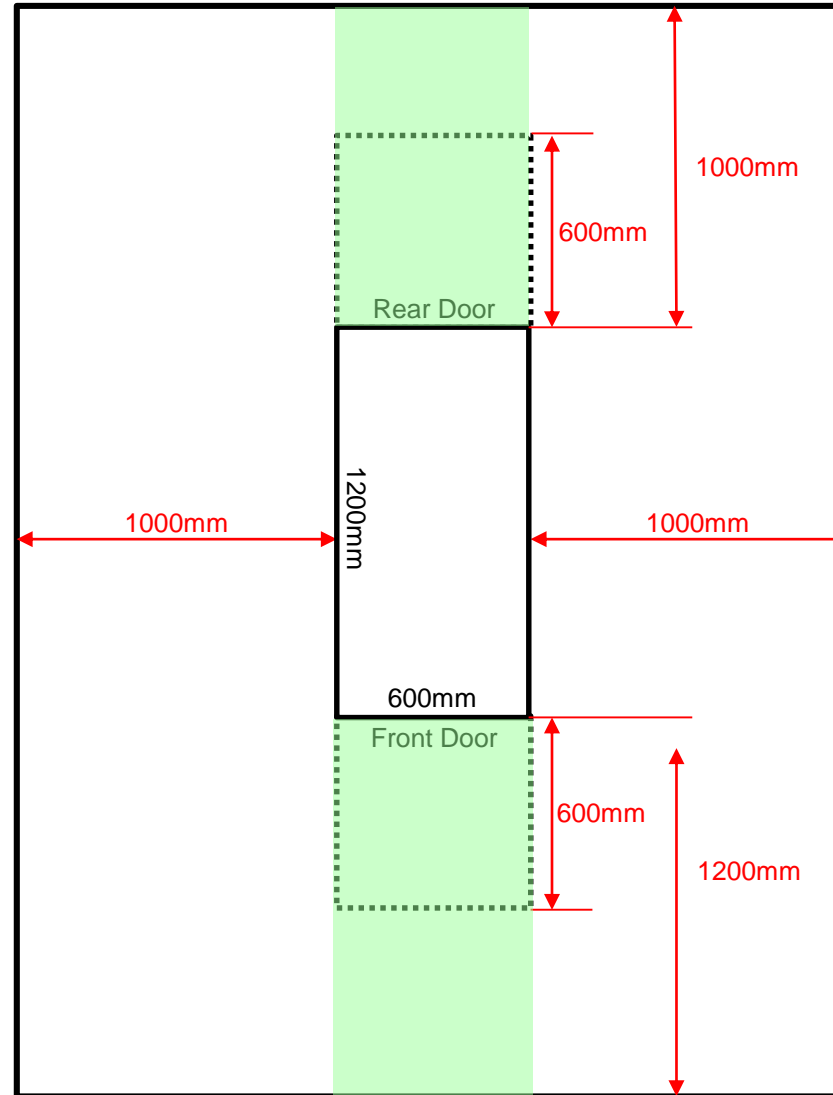
Compulsory
Front and Rear clearance

SmartCabinet™2-E – Internal Component Placement

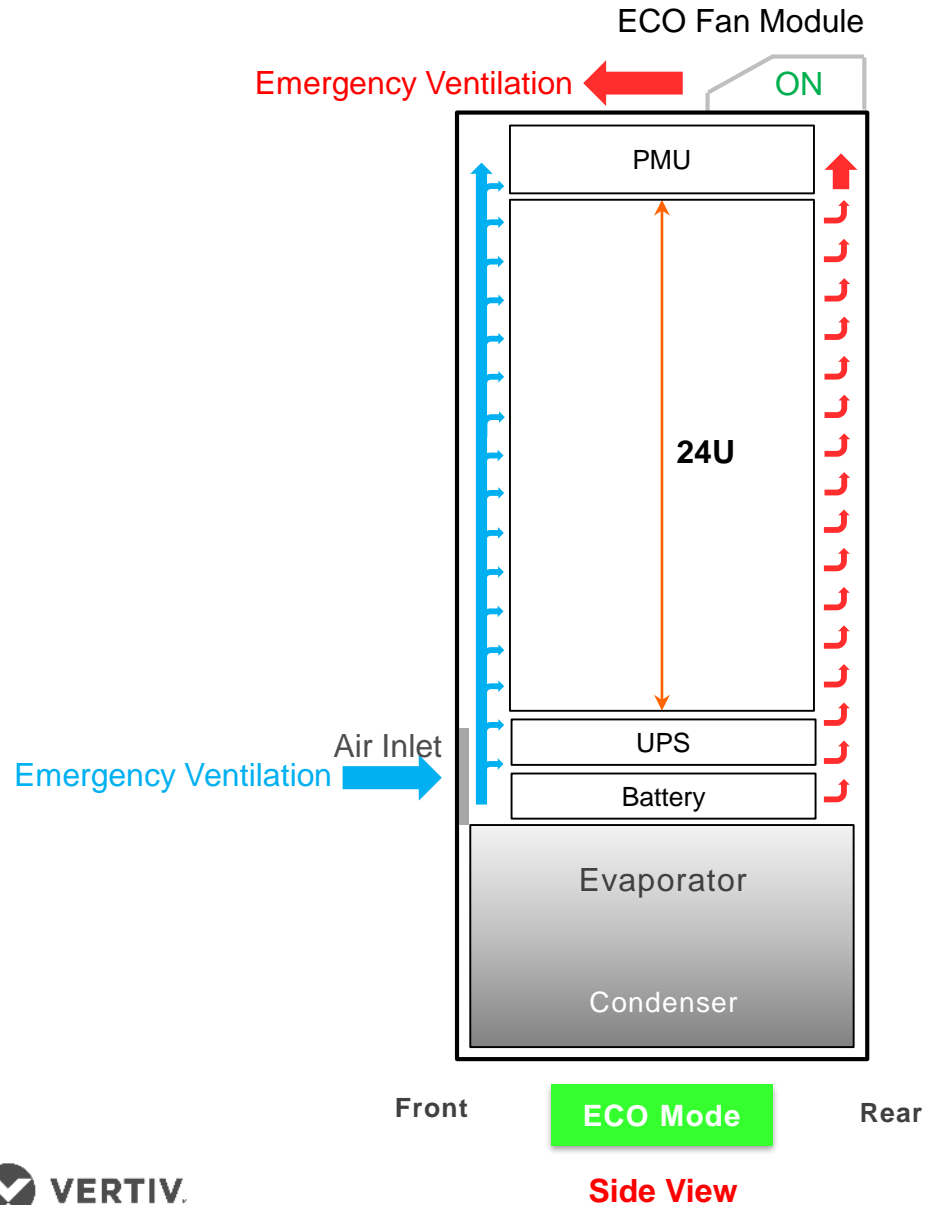**Side View**

Front View

Rear View

SmartCabinet™2-E – ECO Mode

ECO Fan Module

ON

PMU

24U

UPS

Battery

Evaporator

Condenser

Air Inlet

Front   ECO Mode   **Rear**

Side View

28°C

ECO Mode

Ambient Temperature

10°C
Cold Aisle Low Temperature Limit
Default Value: 10°C

30°C
Cold Aisle High Temperature Limit
Default value:30°C

43°C

ECO Mode

Hot Aisle

45°C
Hot Aisle High Temperature Limit
Default value:45oC

ECO Mode

Ambient Humidity

0%   60~80%   100%

Setting Range: 60~80%

SmartCabinet™2-E – AC Mode (Exit ECO Mode)

SmartCabinet™2-E – Emergency Ventilation

ECO Fan Module

Emergency Ventilation ← ON

PMU

24U

UPS

Battery

Air Inlet

Emergency Ventilation →

Evaporator

Condenser

Front   **ECO Mode**   **Rear**

Side View

Emergency Ventilation

Cold Aisle ✓

30°C
High Temperature Alarm

AND

Emergency Ventilation

Ambient Temperature ✓

30°C
Cold Aisle Temperature
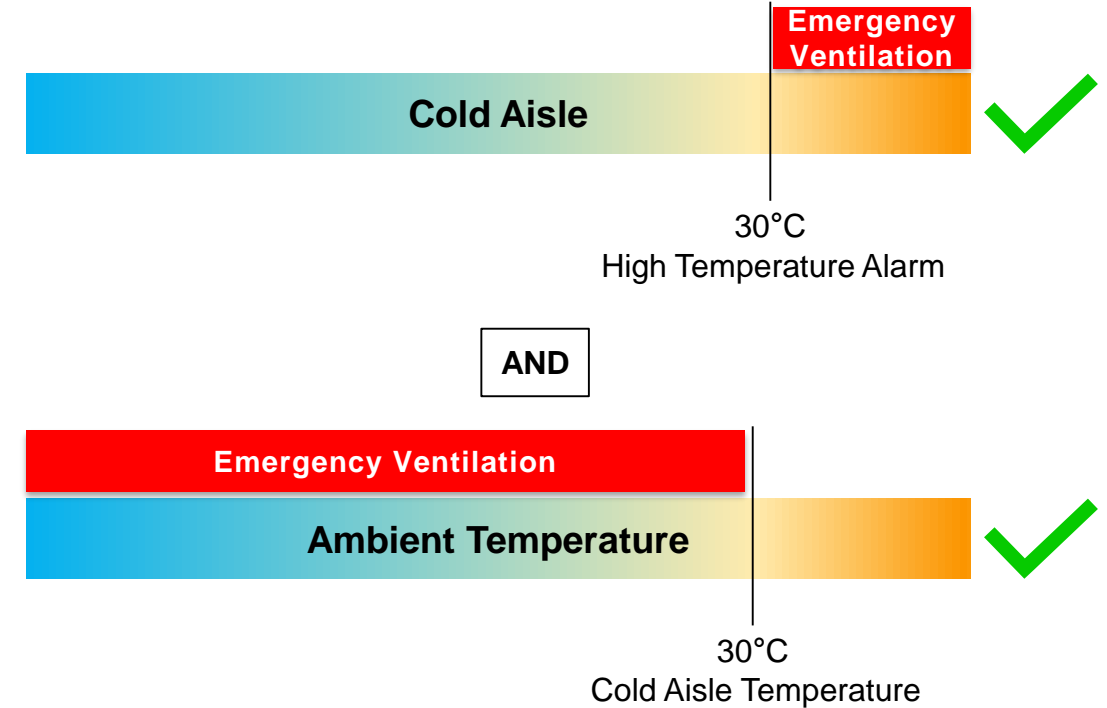
*Emergency Ventilation Mode
1. High temperature in cold aisle
2. Ambient temperature < Cold aisle temperature

*These 2 conditions must be satisfied in order to activate emergency ventilation.

SmartCabinet™2-E – ECO Mode Setting

ECO Mode Setting on RDU Web and HMI
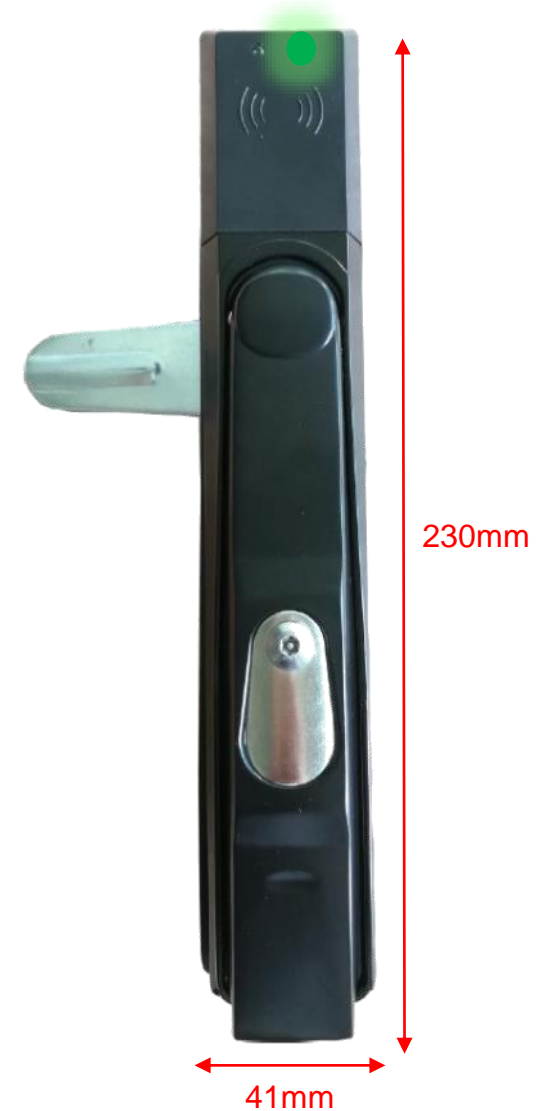
SmartCabinet™2-E – Door Access

Electronic Lock:

Door lock system can be accessed locally by using **ID cards and physical key**. Remote door access can be done via **Web Interface**. Door access history log is recorded intelligently. ID card registration can be done via web interface with ID number input.

230mm

41mm

ID #

RFID Card
Working Frequency: 125kHZ

VERTIV.

SmartCabinet™2-E – Tri-color LED Lighting
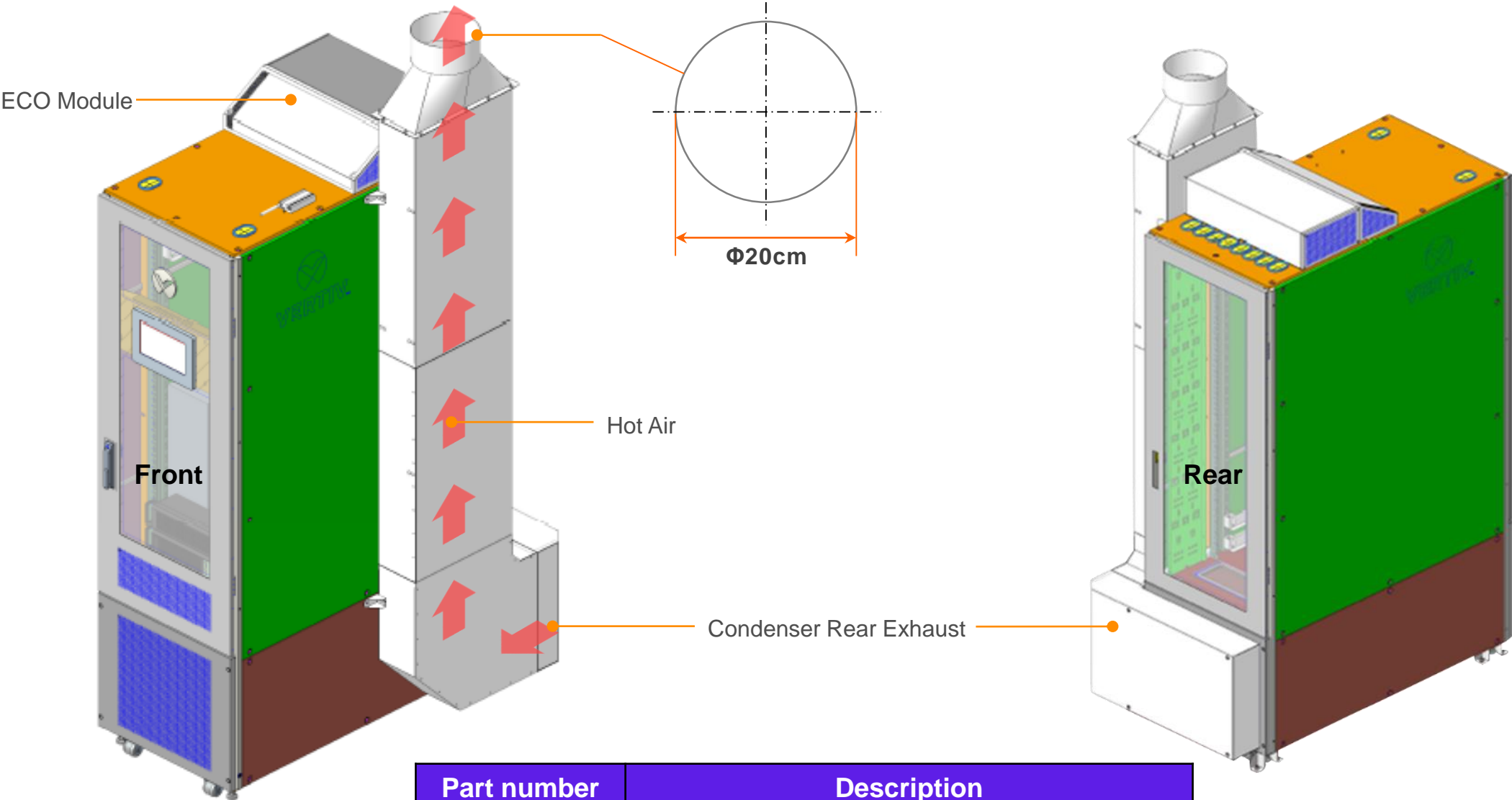
Enables status checking on cabinet.

Normal

Alert
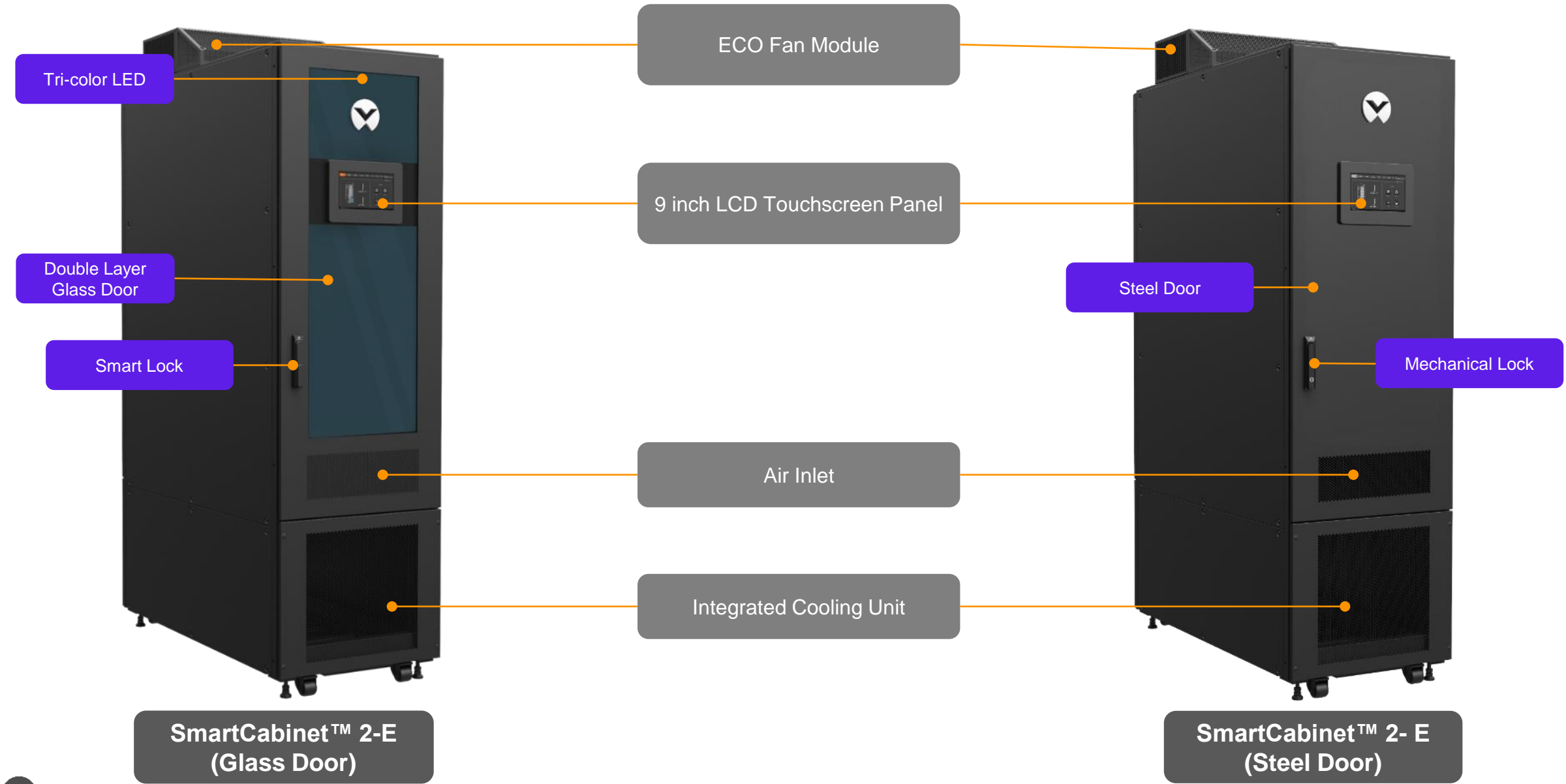
Door Open

SmartCabinet™2-E – Air Duct (Optional)

ECO Module

Φ20cm

Front

Hot Air

Rear

Condenser Rear Exhaust

Part number	Description
02312846	Air Outlet Accessory for SC2-E

VERTIV.

SmartCabinet™2-E: 2 models

ECO Fan Module

Tri-color LED

9 inch LCD Touchscreen Panel

Double Layer Glass Door

Steel Door

Smart Lock

Mechanical Lock

Air Inlet

Integrated Cooling Unit

SmartCabinet™ 2-E (Glass Door)

SmartCabinet™ 2- E (Steel Door)

SmartCabinet™2 - Model & Part Number

Part number	Description	Model number
01230285	SmartCabinet™ 2-**Split 600mm**	MSC-A7S652BSNNX1
01230284	SmartCabinet™ 2-**Split 800mm**	MSC-A7S852BSNNX1
01230459	SmartCabinet™ 2-**Premium** 800mm	MSC-A7P861ASNYAX
01230979	SmartCabinet™ 2-**ECO Glass Door** 600mm	MSC-A7E662ASNYA1
01231103	SmartCabinet™ 2-**ECO Steel Door** 600mm	MSC-A7E662ABNYA1

7= 50Hz & 60Hz

Split, Eco or Premium

600mm or 800mm

S: Smart Lock
B: Sheet Metal Door Mechanical Lock

VERTIV.

SmartCabinet™2 (ECO vs Split)

ECO Mode

Tri-Color LED

24U useable IT space

Integrated Cooling Unit

SmartCabinet™ 2-E (ECO)

PMU-power management unit (Power Breakers)

9 inch touch screen monitoring LCD

Electronic Door lock

600mm Width

Cooling Capacity

IT Load Capacity

Emergency Ventilation

Full Enclosed Containment

29U useable IT space

Outdoor Condenser

SmartCabinet™ 2-S (Split)

VERTIV

SmartCabinet™2 (ECO vs Premium)

ECO Mode

Tri-Color LED

24U useable IT space

600mm Width

Integrated Cooling Unit

SmartCabinet™ 2-E (ECO)

PMU-power management unit (Power Breakers)

9 inch touch screen monitoring LCD

Electronic Door lock

ITA2 6kVA UPS

High Availability (Cooling)

Cooling Capacity

IT Load Capacity

Emergency Ventilation

Full Enclosed Containment

42U useable IT space

800mm Width

Outdoor Condenser

SmartCabinet™ 2-P (Premium)

VERTIV.

When do we use which SmartCabinet™?

SmartCabinet™-S (Split):

- **2000mm** x 600mm x 1200mm
- 5KVA / 5KW UPS **rack mount**
- 3.5KW Cooling **rack mount**
- **Outdoor Condenser**
- Ingress Protection Code: IP5X
- **29RU IT useable space**
- LCD touch screen
- 50amp breaker size required

SmartCabinet™-P Premium (Split)

- **2000mm** x 600mm x 1200mm
- 6KVA / 6KW UPS **side mount**
- 3.5KW Cooling **side mount**
- **Cooling supported by UPS**
- **Outdoor Condenser**
- Ingress Protection Code: IP5X
- **42RU IT useable space**
- LCD touch screen
- 50amp breaker size required

SmartCabinet™-E (ECO)

- **2150mm** x 600mm x 1200mm
- 6KVA / 6KW UPS **rack mount**
- 3.5KW Cooling **rack mount**
- **Integrated cooling unit**
- **ECO Mode**
- **Cooling supported by UPS**
- Ingress Protection Code: IP2X
- **24RU IT useable space**
- LCD touch screen
- 50amp breaker size required

Choose me when

- No restriction with building.
- When they allow you to drill holes through wall and place condenser outdoor.
- **Outdoor have space for condenser placement.**
- **Distance between outdoor and indoor cooling is within the piping limitation.**
- When customer require slightly more IT rack space to house compare to Integrated type with mixture of legacy and new servers and storage with minimum network equipment.

Choose me when

- No restriction with building.
- When they allow you to drill holes through wall and place condenser outdoor.
- **Outdoor have space for condenser placement.**
- **Distance between outdoor and indoor cooling within the piping limitation.**
- When customer require FULL height IT rack 42U space to house maybe **legacy, new servers, network switches, patch panels with more network patch cables**
- **Require cooling to be supported by UPS.**

Choose me when

- Have restriction with building.
- When they do not allow you to drill holes through wall and place condenser outdoor
- **Do not have space for condenser placement**
- **Distance between outdoor condenser and indoor cooling exceed the piping limitation.**
- Heat exhaust kit will be required to duct upwards (optional)
- Customer is using new IT technology which don't consume a lot of IT Rack space
- **Require cooling to be supported by UPS**

SmartCabinet™ Family Specifications

Description	SmartCabinet™ Family		
Cabinet Size (H x W x D)	2000 x **600** x 1200 (mm) 2000 x **800** x 1200 (mm)	2000 x **800** x 1100 (mm)	2150 x **600** x 1200 (mm)
Type	**Split Type**	**Split Type (Premium)**	**ECO**
Usable U Space	**29U**	**42U**	**24U**
Width of Cabinet	600 mm or 800 mm	800 mm only	600 mm only
Outdoor Unit	**Split (Outdoor)**	**Split (Outdoor)**	**Self-Contained**
Cooling High Availability	**No**	**Yes**	
UPS (Liebert ITA2)	**5kVA**	**6kVA**	
Cooling Capacity	900~3500W		
System Capacity	3000 W		
System Input Requirement	50A, Single Phase 220/230/240		
System Frequency	50Hz & 60Hz		
Rack PDU	32A input, 18×C13+6×C19, 2pcs	16A input, 14×C13+2×C19, 1 pc(PMB) 16A input, 12×C13+4×C19, 1 pc(PDU)	16A input, 12×C13+4×C19, 2pcs
Display Panel	9" Touch Panel LCD		
Door Lock System	Electronic Lock		