



Enclosure and Airflow  
Management Solution  
**Aisle Doors**



# OUR STRENGTH & ABILITY

**Highly flexible, high-performance aisle containment system that eliminates mixing of hot and cold air for maximum cooling efficiency and lower operating costs.**

Innovative design that is customized to your environment and scalable to meet your future needs.

- ◇ Increase temperature differential at CRACs / CRAHs for improved efficiency
- ◇ Eliminates hot spots to prevent equipment overheating and failures
- ◇ Adaptable for either cold aisle or hot aisle containment
- ◇ Lightweight, transparent, fire retardant grade panels for easy handling and installation
- ◇ On site modifiable to meet varying height and limited space requirements
- ◇ Universal rail system to accommodate any cabinet size and style
- ◇ Multi doors options including dual & single sliding doors to swing to fit any application
- ◇ Smoke or fire alarm activated panels design for early unobstructed fire suppression
- ◇ Fully resettable and testable panels improve safety and prevent damage

# OUR PRODUCTS & SERVICES

We provide Custom Designs, Supply & Installation services in one shop, our knowledges & expertise allow our solutions fit for today market demand from hyperscale data center to small data hall.

Our containment system is a robust aluminum extrusion tube construction that allow flexibility when used in customized solutions. It provides exceptional strength and support whilst minimizing weight. The profile and construction are aesthetically appealing, and the standard system can easily accommodate all toe and sizes of cabinets.

Furthermore, our containment system allows for many other data center services to be integrated. These services include: access control systems, lighting, CCTV, status switches, environmental monitoring sensors, VESDA, fire suppression systems, evacuation signs and exit points.

# OUR MATERIAL

## MAIN STRUCTURE FRAME

### Aluminum Alloy 6063-T5 Extrusions

Aluminum alloy 6063 is a medium strength alloy commonly referred to as an architectural alloy. It is normally used in intricate extrusions. It has good surface finish, high corrosion resistance, is readily suited to welding and can be easily anodized. Most commonly available as T5 Temper.

Comply with GB5237.2 – 2008 & GB/T 6892 – 2006 Standard



GENERAL CHEMICAL COMPOSITION	
<i>Element</i>	<i>% Present</i>
Magnesium (Mg)	0.45 – 0.90
Silicon (Si)	0.20 – 0.60
Iron (Fe)	0.00 – 0.35
Others (Total)	0.00 – 0.15
Chromium (Cr)	0.00 – 0.10
Copper (Cu)	0.00 – 0.10
Titanium (Ti)	0.00 – 0.10
Manganese (Mn)	0.00 – 0.10
Zinc (Zn)	0.00 – 0.10
Other (Each)	0.00 – 0.05
Aluminum (Al)	Balance

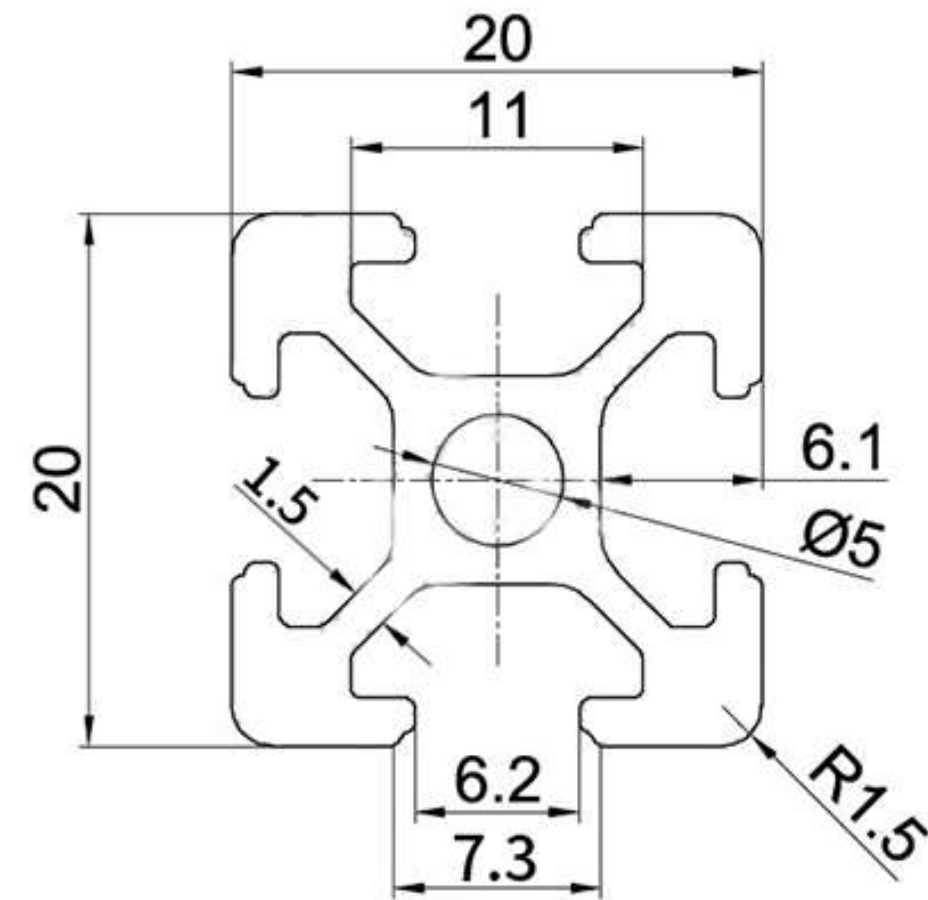
GENERIC PHYSICAL PROPERTIES	
<i>Property</i>	<i>Value</i>
Density	2.70g/cm <sup>3</sup>
Melting Point	655°C
Thermal Expansion	23.5 x 10 <sup>-6</sup> /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	201 W/m.K
Electrical Resistivity	52% IACS
Electrical Resistivity	0.033 x10 <sup>-6</sup> Ω .m

# ALUMINUM ALLOY 6063-T5 EXTRUSIONS

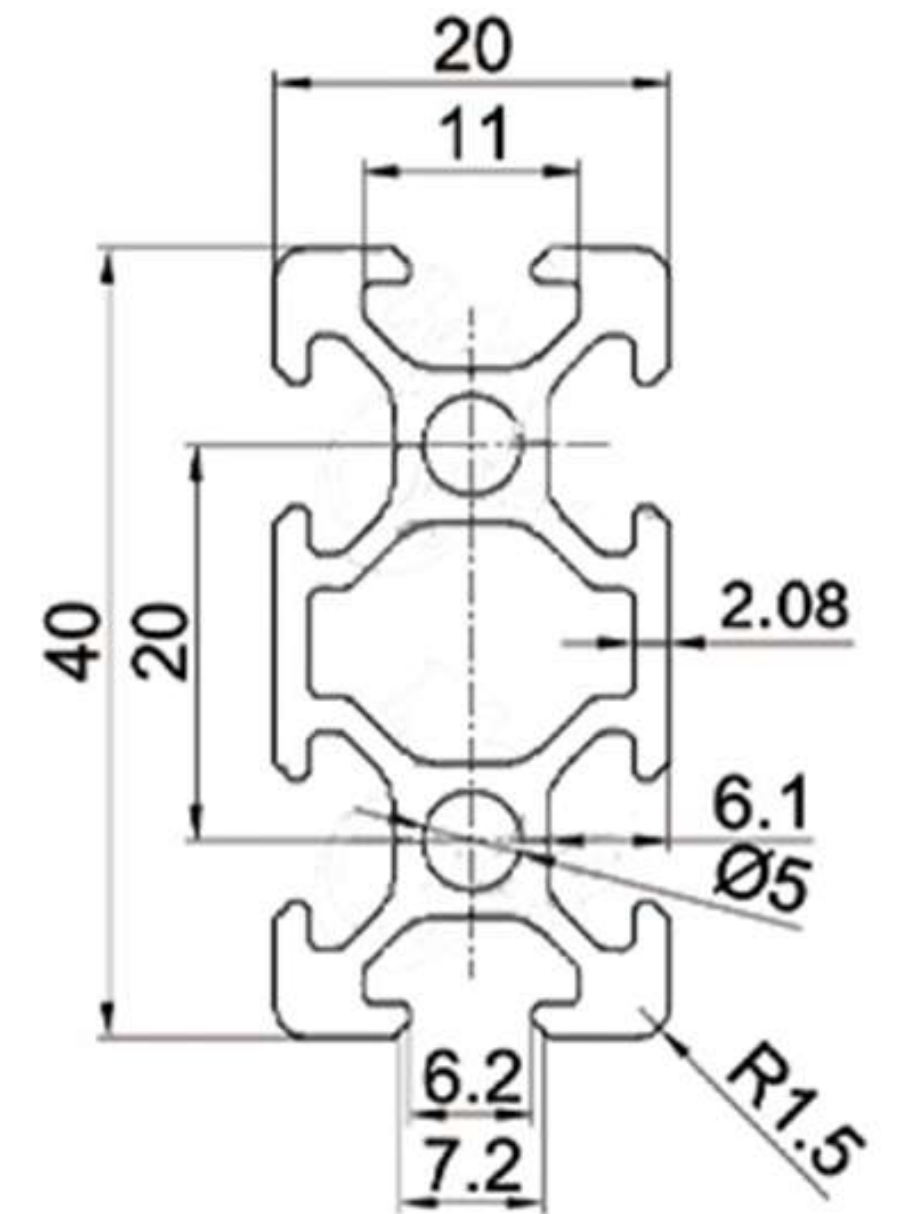
## SERIES 20



Model 2020



Model 2040

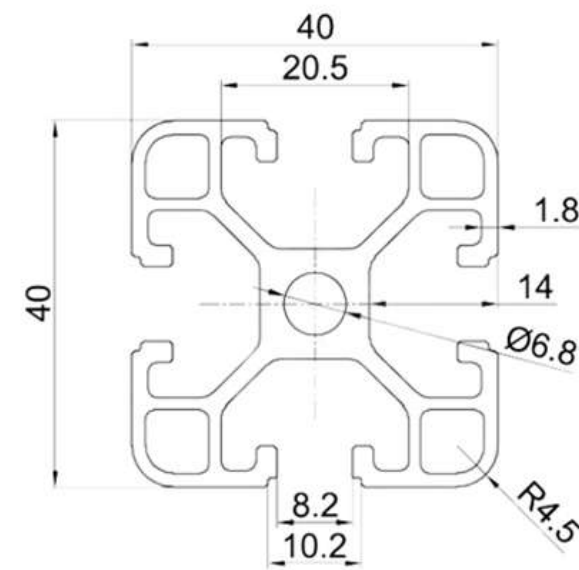


### Available Colors:

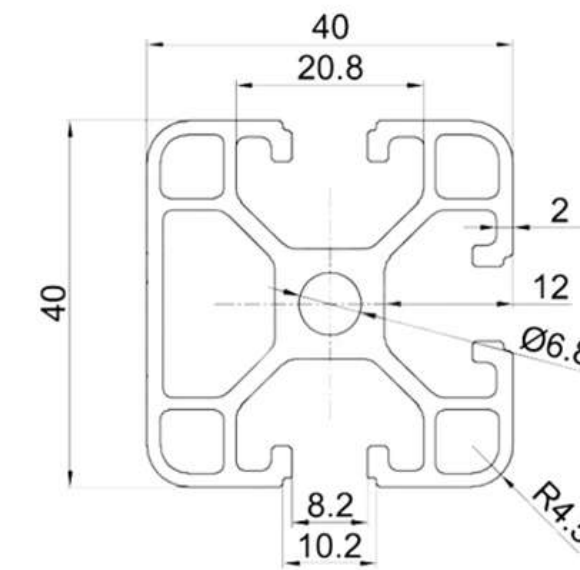
- Aluminum Sliver
- Bright White
- Black

# ALUMINUM ALLOY 6063-T5 EXTRUSIONS

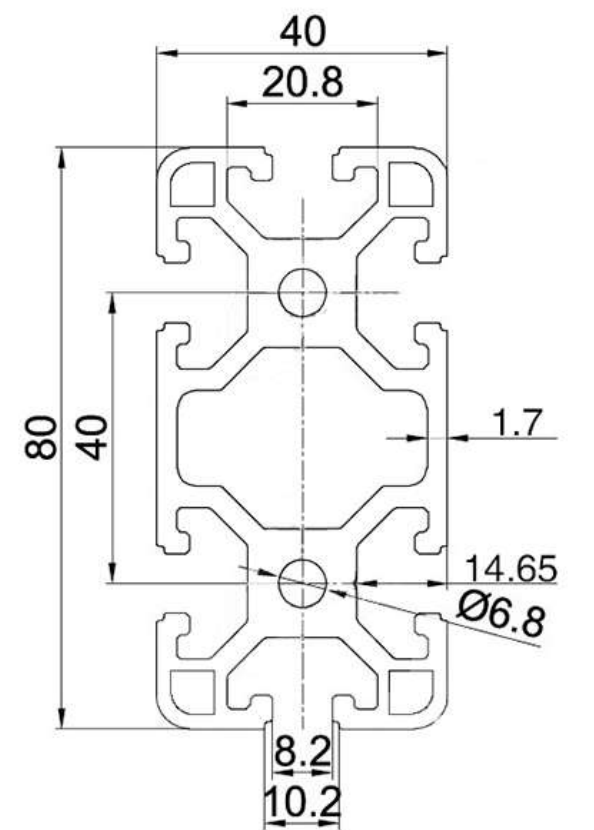
## SERIES 40



Model 4040



Model 4040L

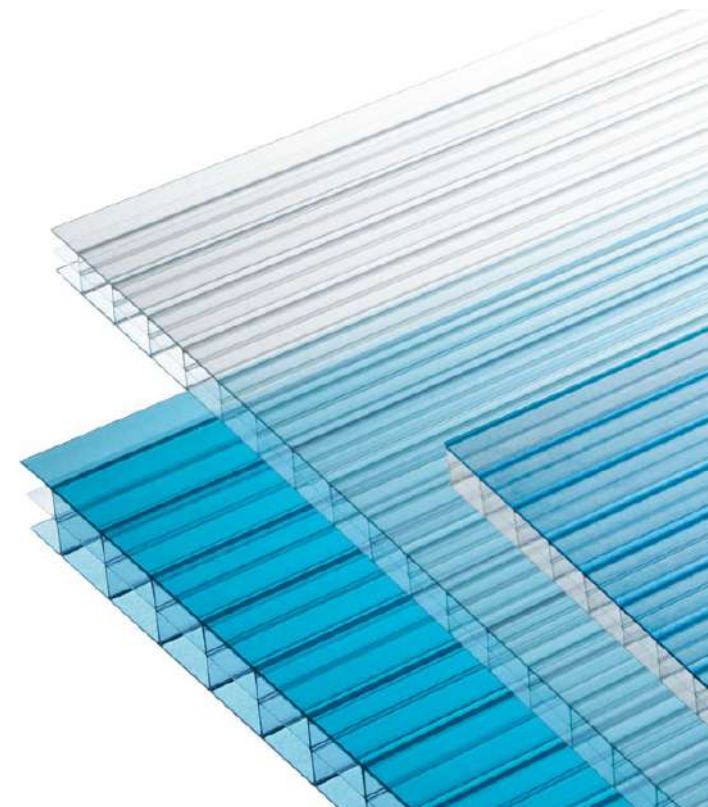
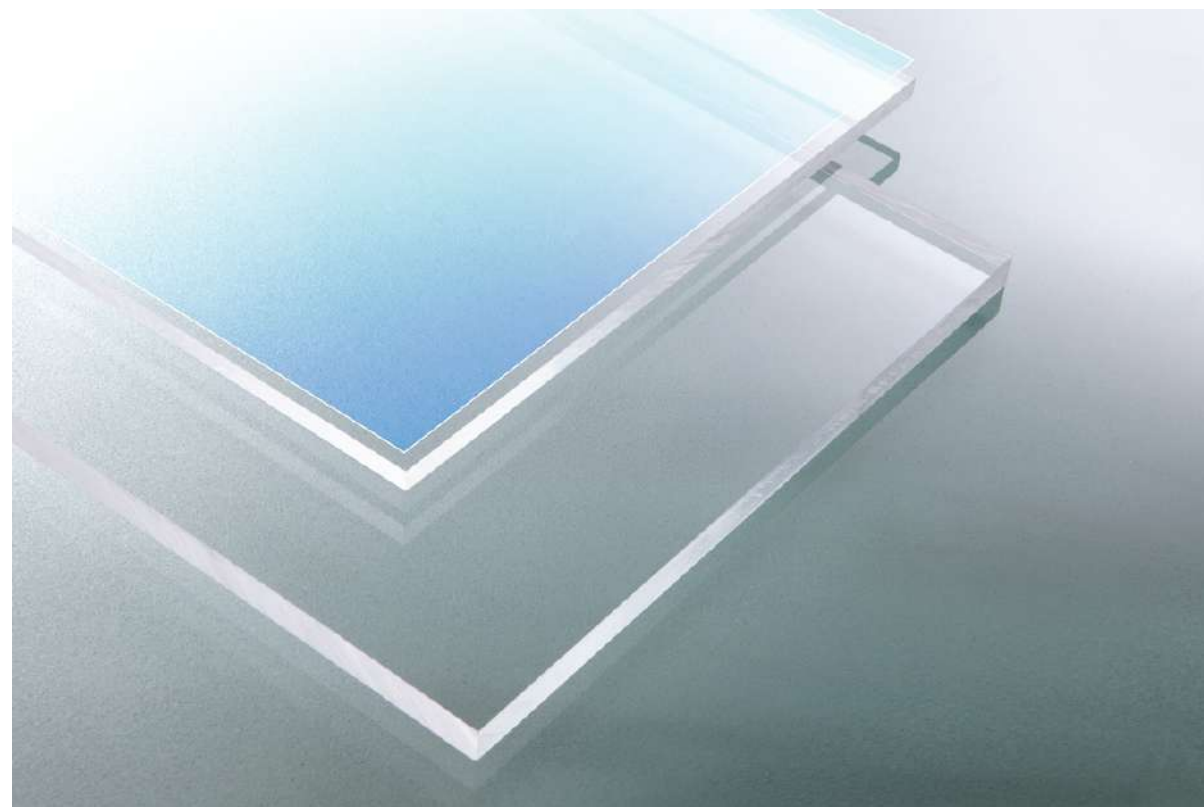


Model 4080

### Available Colors:

- Aluminum Sliver
- Bright White
- Black

# HIGH GRADE OF POLYCARBONATE (PC) FLAT SOLID SHEET & TWIN WALL SHEET




- ◇ **Light Weight:**  
1/3 weight of traditional glass, saving logistic, system self-weight, deployment & installation cost
- ◇ **High Impact Strength:**  
25–50 times of impact resistance of tempered glass and Acrylic Plastic
- ◇ **Thermal Stability:**  
Less property change (Like bending & shrinking) within  $-40^{\circ}\text{C}$ ~ $120^{\circ}\text{C}$  temperature range
- ◇ **Weatherability:**  
Co-extruded UV layer, Long-term UV radiation protection (Optional & Additional Charge Apply)
- ◇ **Heat Insulation:**  
Good thermal insulation performance, minimize heat consumption
- ◇ **Flame Retardancy:**  
Fire Retardant grade, self-extinguishing property, done not occur flames or generate toxic gases
- ◇ **High Clarity:**  
Up to 86% light transmission rate
- ◇ **Chemical Stability:**  
Resistant to most chemicals except for a few specific materials
- ◇ **Sound Insulation:**  
Superior acoustic insulation, ideal for making sound barrier
- ◇ **Formability:**  
Ease of fabrication, a huge range of shapes and sizes able to formed

# HIGH GRADE OF POLYCARBONATE (PC)

## FLAT SOLID SHEET & TWIN WALL SHEET

Our PC materials are manufactured by top class supplier that using SABIC resin(s) PC0703, which has an UL 94 listing of E45329

Component - Plastics							<b>E45329</b>
<b>SABIC INNOVATIVE PLASTICS B V</b>							
EUROPE - RESIN, PLASTICSLAAN 1, BERGEN OP ZOOM 4612 PX NL							
<b>EX9332T</b>							
Polycarbonate (PC)			furnished as pellets				
<b>Color</b>	<b>Min Thk (mm)</b>	<b>Flame Class</b>	<b>HWI</b>	<b>HAI</b>	<b>RTI Elec</b>	<b>RTI Imp</b>	<b>RTI Str</b>
ALL	1.5	V-0	-	-	80	80	80
NC	2.5	V-0, 5VB	-	-	80	80	80
ALL	3.0	V-0	-	-	80	80	80
Comparative Tracking Index (CTI): -			Inclined Plane Tracking (IPT): -				
Dielectric Strength (kV/mm): -			Volume Resistivity (10 <sup>x</sup> ohm-cm): -				
High-Voltage Arc Tracking Rate (HVTR): -			High Volt, Low Current Arc Resis (D495): -				
Dimensional Stability (%): -							
<b>NOTE - Material designation may be followed by a color nomenclature consisting of either an alpha/numeric or a numeric/alpha combination.</b>							
ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.							
Report Date:2010-10-12							
Last Revised:2011-10-21		© 2011 Underwriters Laboratories Inc.					

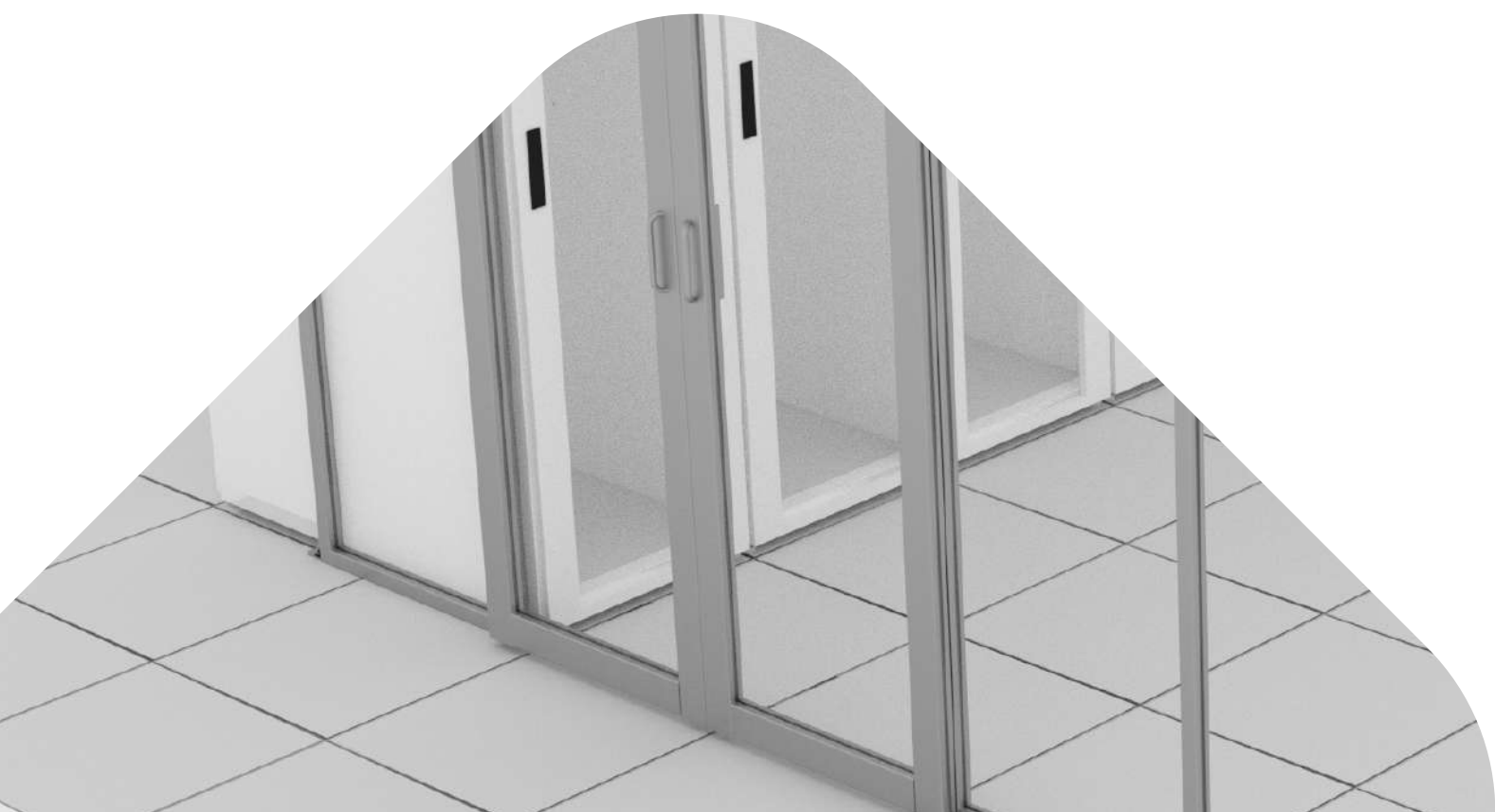
### IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10, IEC 60695-11-20	Class (color)	1.5	V-0 (ALL)
			2.5	V-0, 5VB (NC)
			3.0	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m <sup>2</sup>	-	-
ISO Izod Impact	ISO 180	kJ/m <sup>2</sup>	-	-
ISO Charpy Impact	ISO 179-2	kJ/m <sup>2</sup>	-	-

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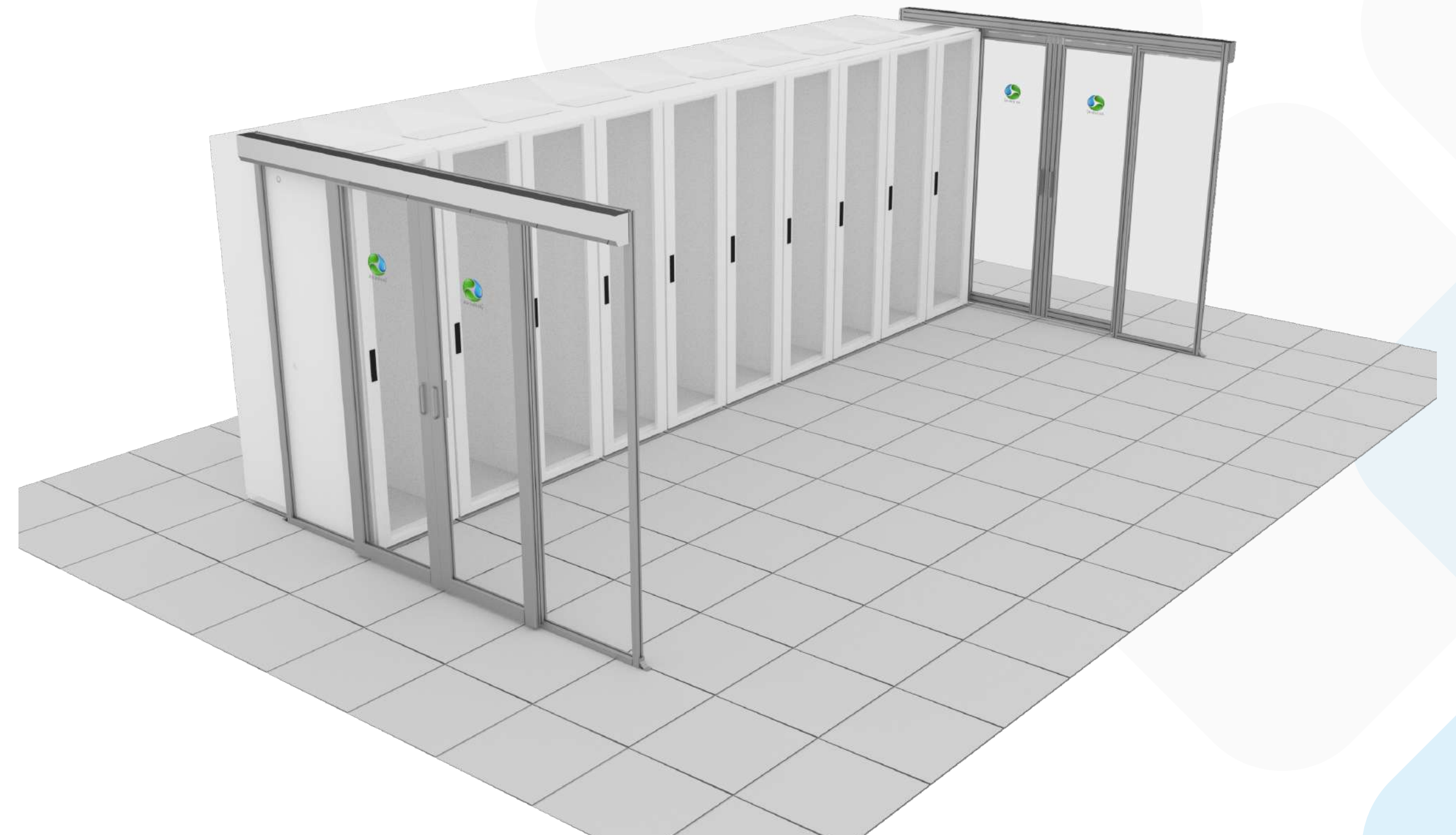
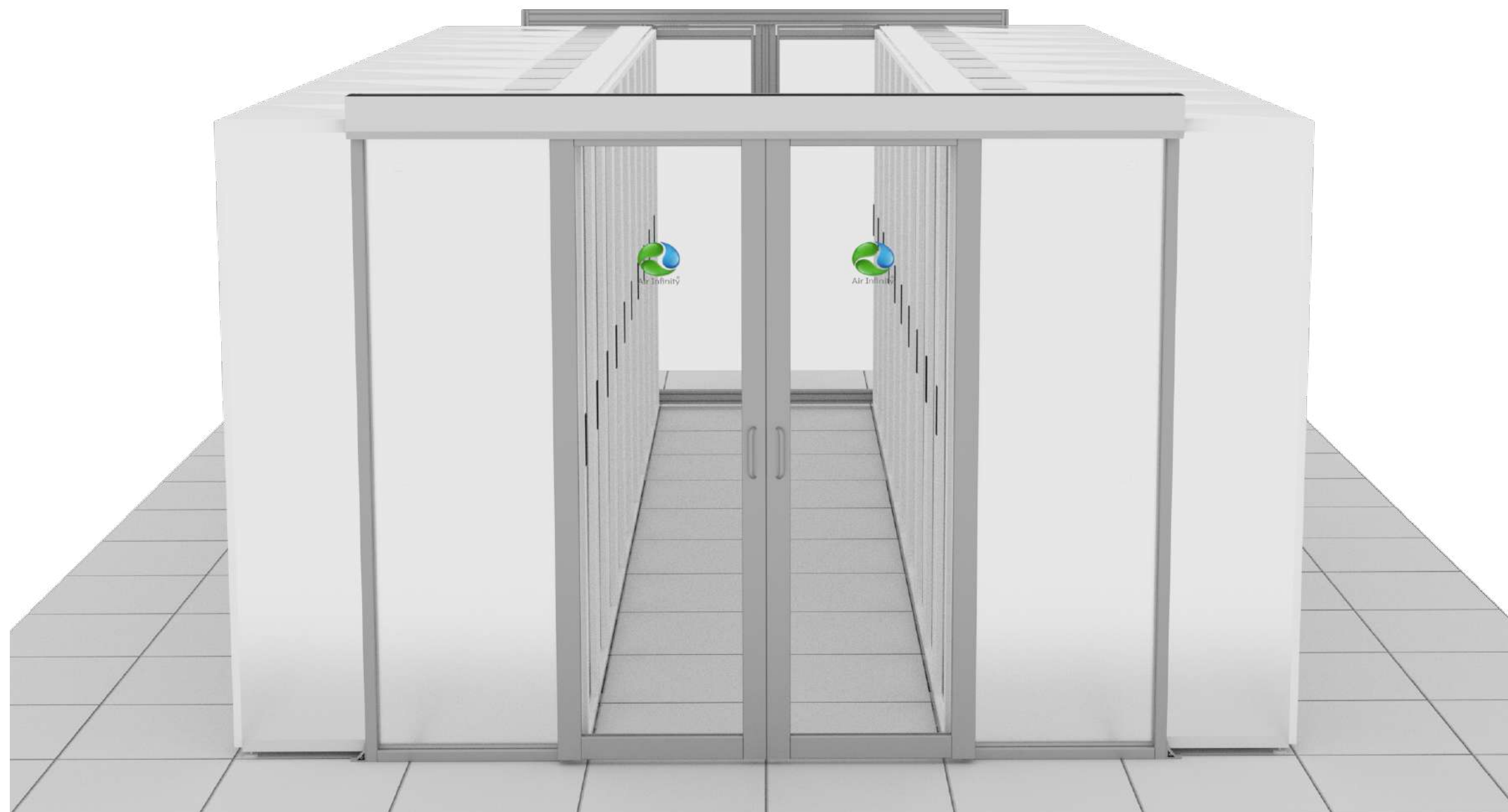



# AISLE DOORS



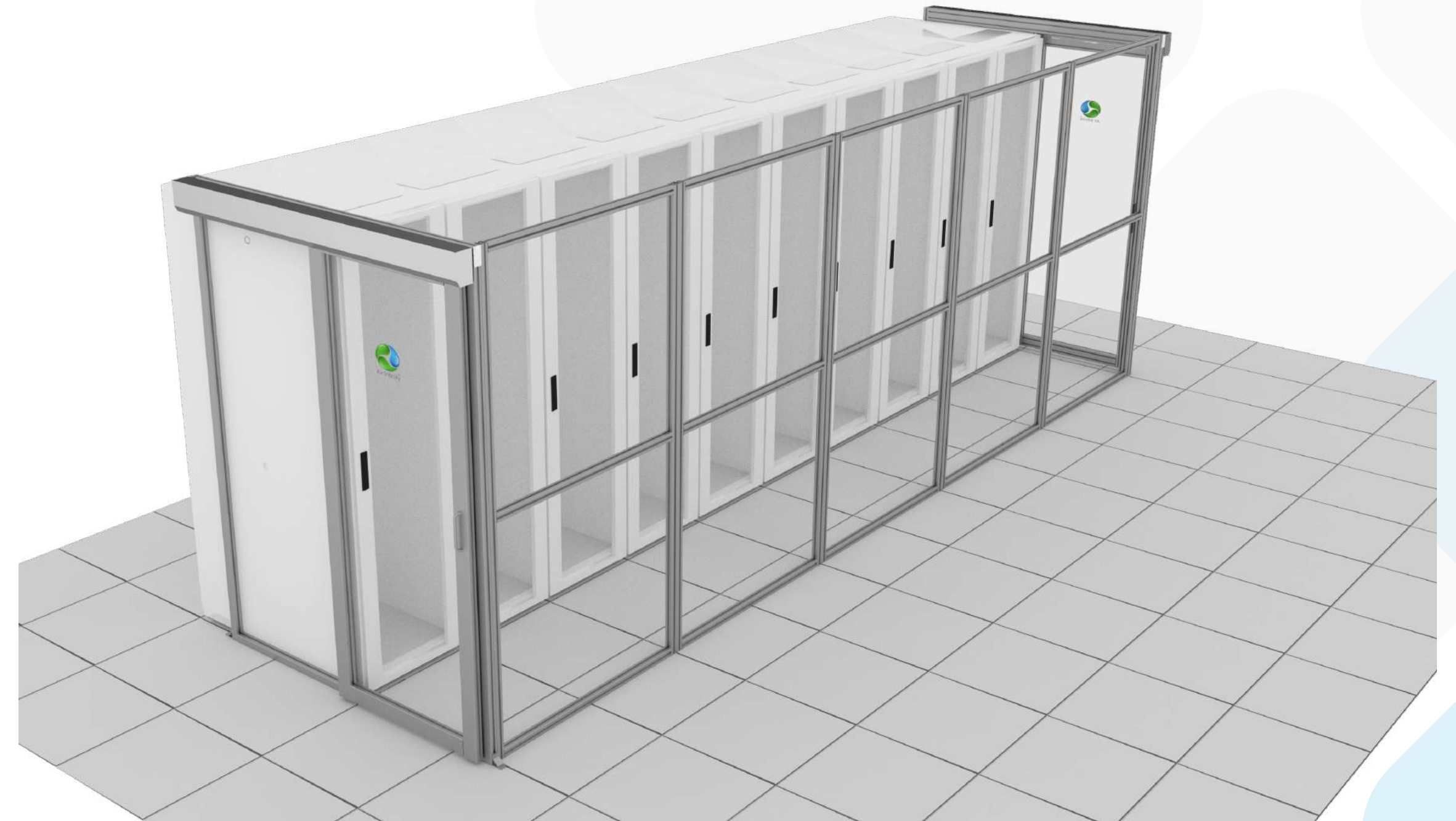
# DS

## DUAL SLIDING DOORS



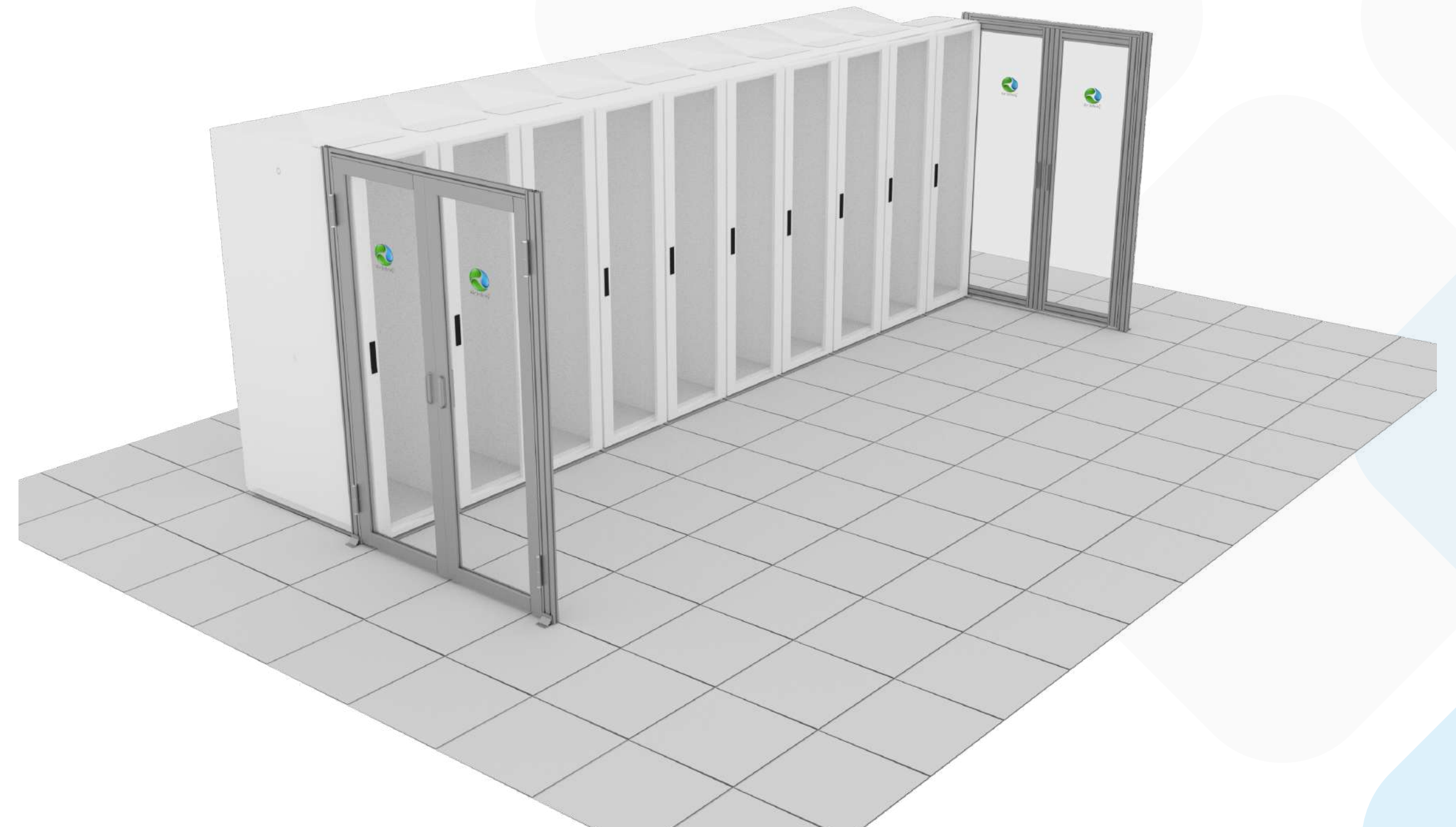
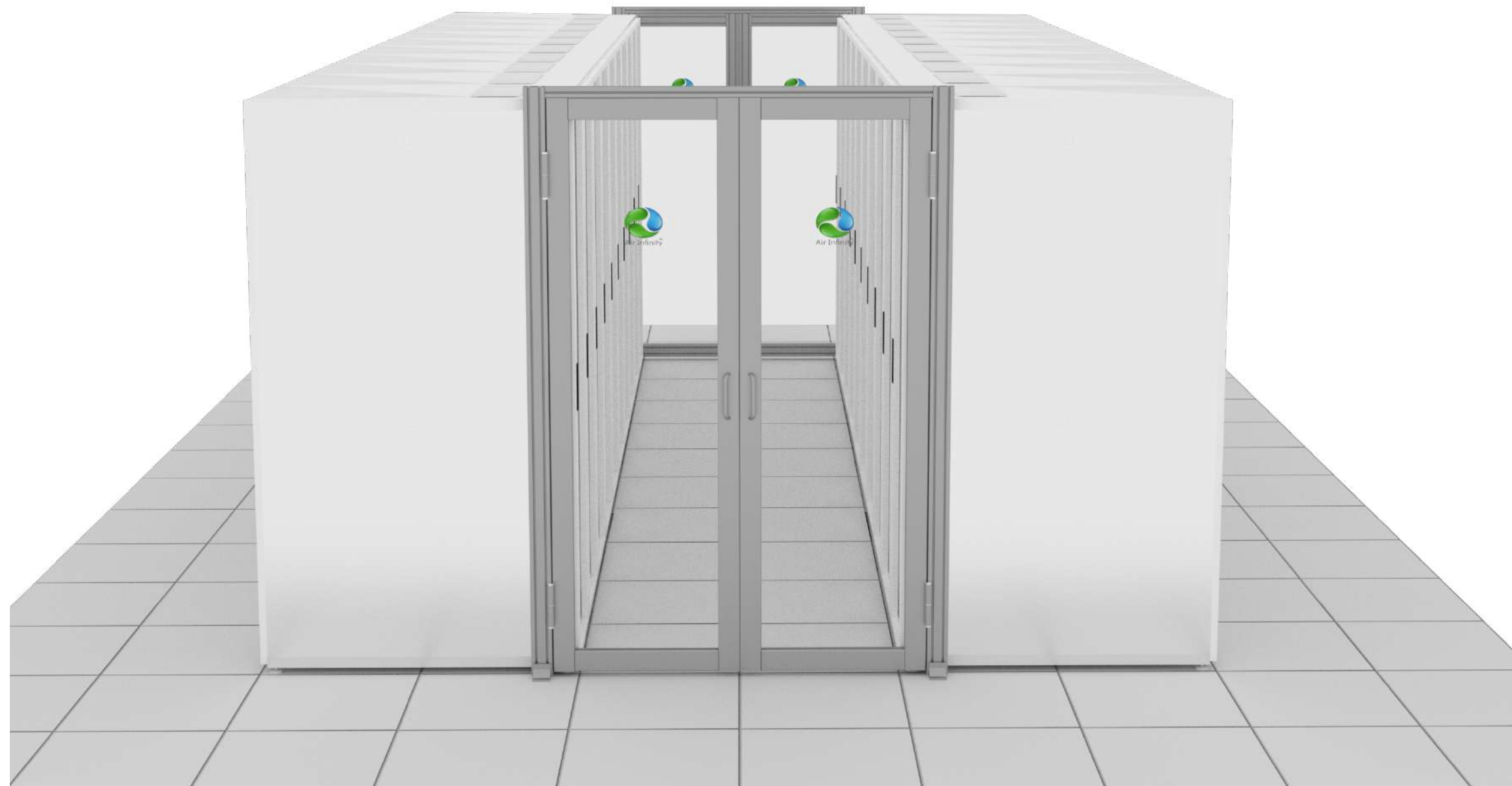
SS 

# SINGLE SLIDING DOOR



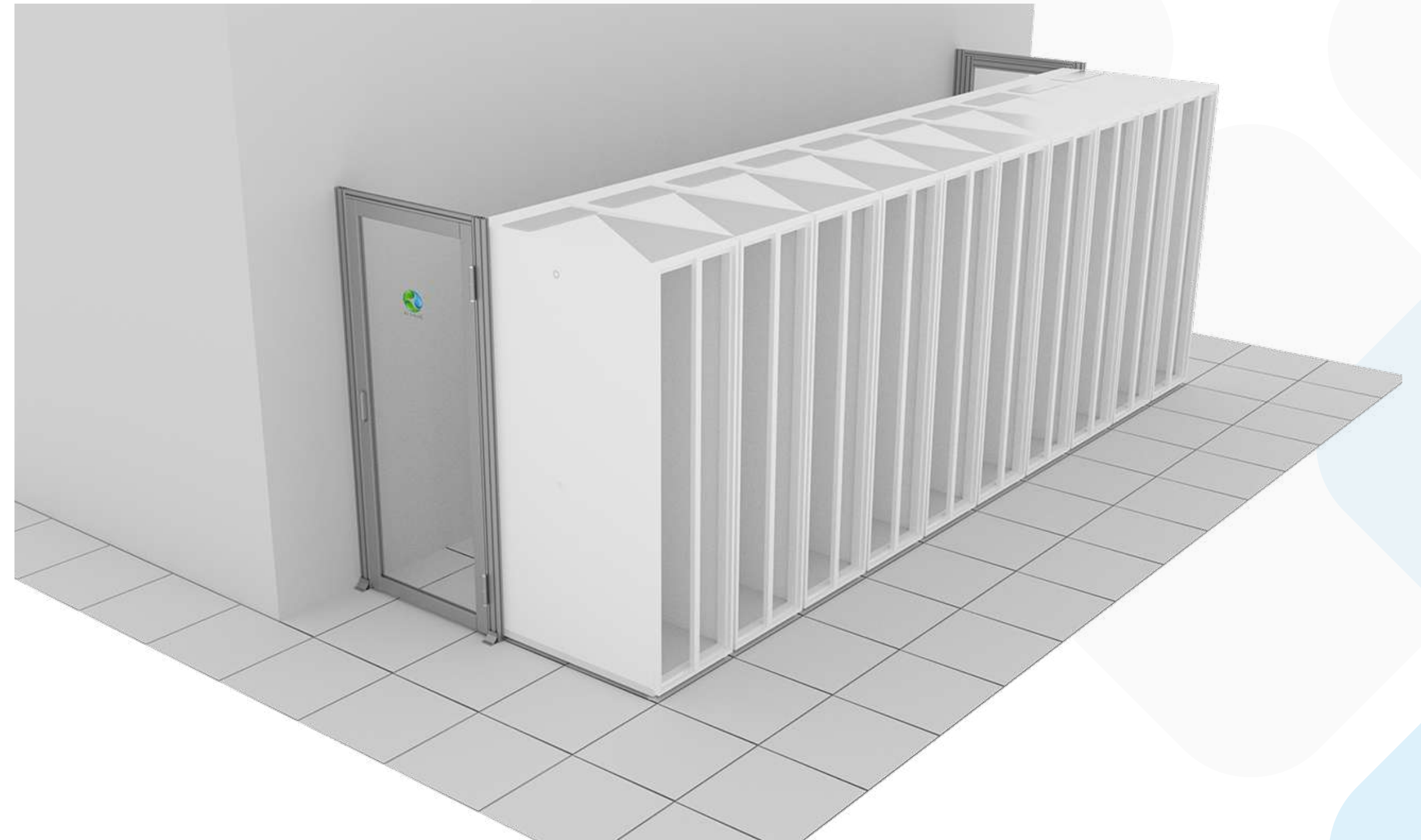
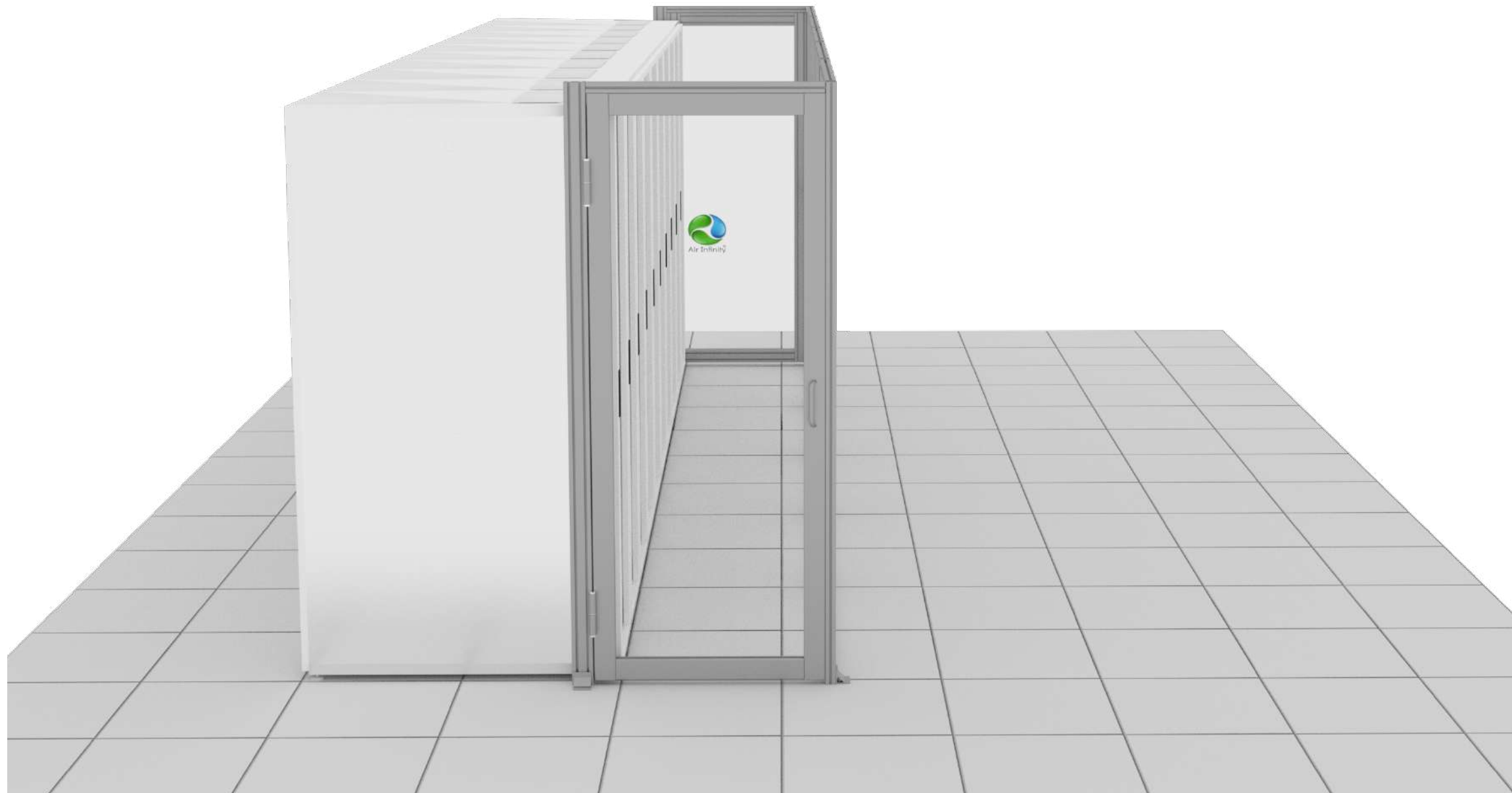
# DW

## DUAL SWING DOORS



# SW

## SINGLE SWING DOOR



**DW+** 

# DUAL SLIDING DOORS + VERTICAL STAND PANELS



# AISLE DOORS PRODUCT GENERAL SPECIFICATIONS:



## **(DS – Dual Sliding Doors)**

Dimension: 2100mm (Custom Height) x 2700mm (Width) x 130mm (Deep)

Structure Properties: Extruded 6063-T5 Aluminum Alloy

Weight: 75kg Approx. \*Using with 3mm Polycarbonate Sheet

Color: Aluminum Silver, Black or Bright White

Door Open Clearance: 1200mm Width

## **Optional Panels Inserts**

3mm Polycarbonate Sheet, Fire retardant grade

8mm Twin Wall Polycarbonate Board, Comply with Fire retardant grade

3mm Acrylics Sheet

4mm General Tempered Glass

4mm Tempered Glass, Comply with EN12150-1 or GB15763.2

## **Unique Features – Optional**

One Hand Opening

Auto Hold

Power Free Auto Retract

Modular Wing Panels

# MODELS

## DESIGNATION / TYPE

**A DS 12 S PC (M)**  
 1 2 3 4 5

**1) Type**

SW - Single Swing Door  
 DW - Dual Swing Door

SS - Single Sliding Door  
 DS - Dual Sliding Door

**2) Door Opening Width**

08 - 800mm  
 09 - 900mm

10 - 1000mm  
 12 - 1200mm

**3) Color**

S - Aluminium Silver  
 B - Black

W - Bright White

**4) Pannel Type**

PC - Polycarbonate Plastic Sheet  
 TW - Twin - Wall Polycarbonate Plastic Sheet

TG - Temper Glass  
 SG - Standard Glass

**5) Function**

M - Manuel Open / Close  
 A - Power Free Auto Retract

O - One Hand Open / Close  
 L - Auto Hold





# WARRANTY & POLICIES

## 1. Design Changes:

To allow continued progress, improvement, and adaptability in an advancing industry, all Air Infinity products reserves the right to make product changes as deemed necessary

## 2. Proprietary Rights

The catalog and drawings contain information deemed proprietary to Air Infinity and are to be used only for the purposes for which they are submitted and, further, shall not be copied in whole or in part without the prior written consent of Air Infinity

## 3. General Sales Terms

All quotations, order confirmations, published prices, and discounts based on official documentation from Filco System Co., Ltd, owner of Air Infinity brand name

## 4. Limited Warranty

Air Infinity will repair or replace products, accessories, and components assembled or deployed by Air Infinity that are

proven to be defective in material or factory workmanship under normal use during the Period of this Warranty

## 5. Warranty Period

3 Months (90 Dyas) from date of completion with signed document (Non-transferable)

## 6. This warranty does not cover:

- Failure in whole or part resulting from misuse, alteration, excessive temperature, excessive humidity, corrosive environment, or lack of maintenance
- Any materials or components used or manufactured pursuant to the purchaser's specifications
- Items ordered in error or not required

## 7. Power / Accessories

Warranty as specified by manufacturer subject to latest policy

## 8. Warranty Repair

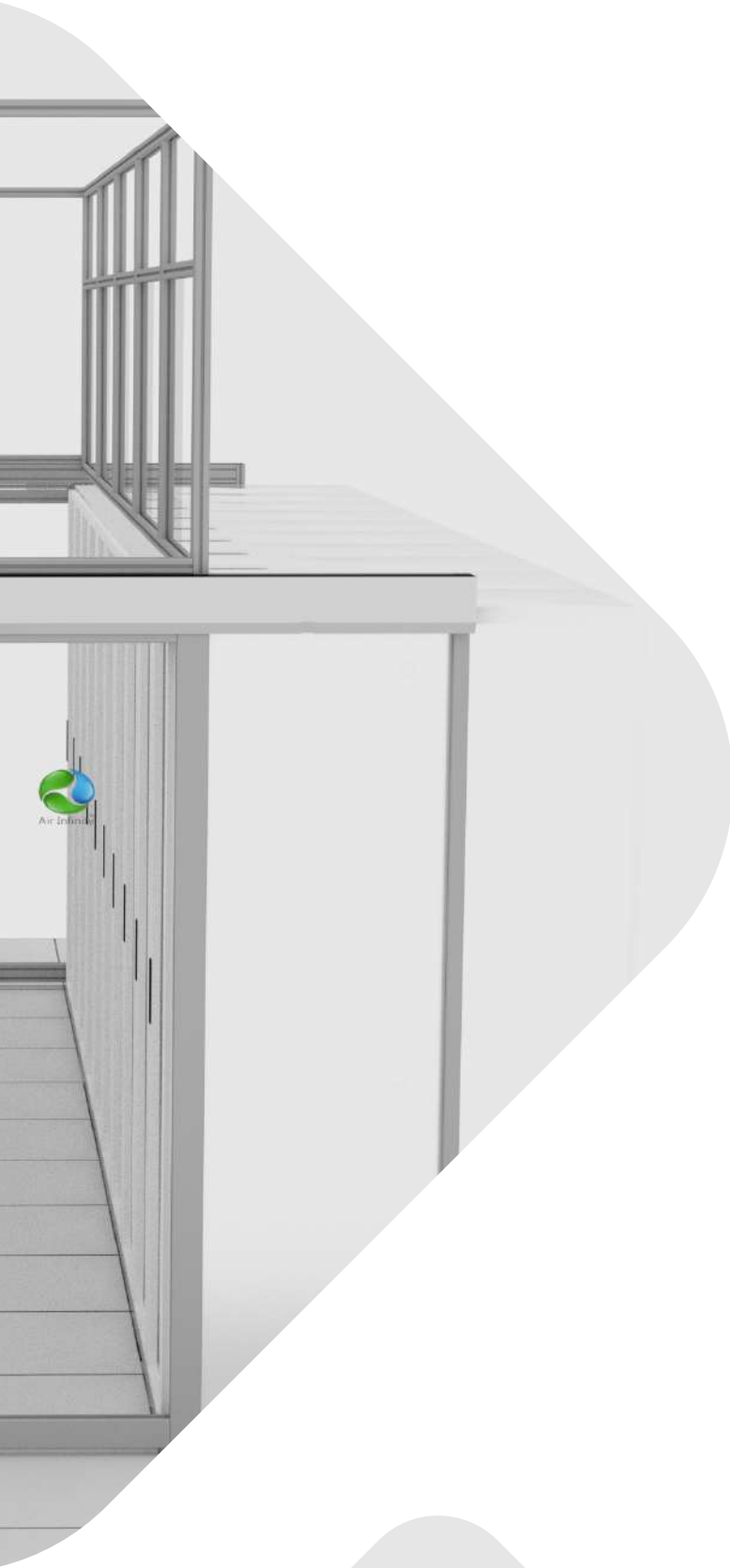
End User shall report & obtain controlled authorization number before returning any items alleged to be defective to Air Infinity

## 9. Inspection

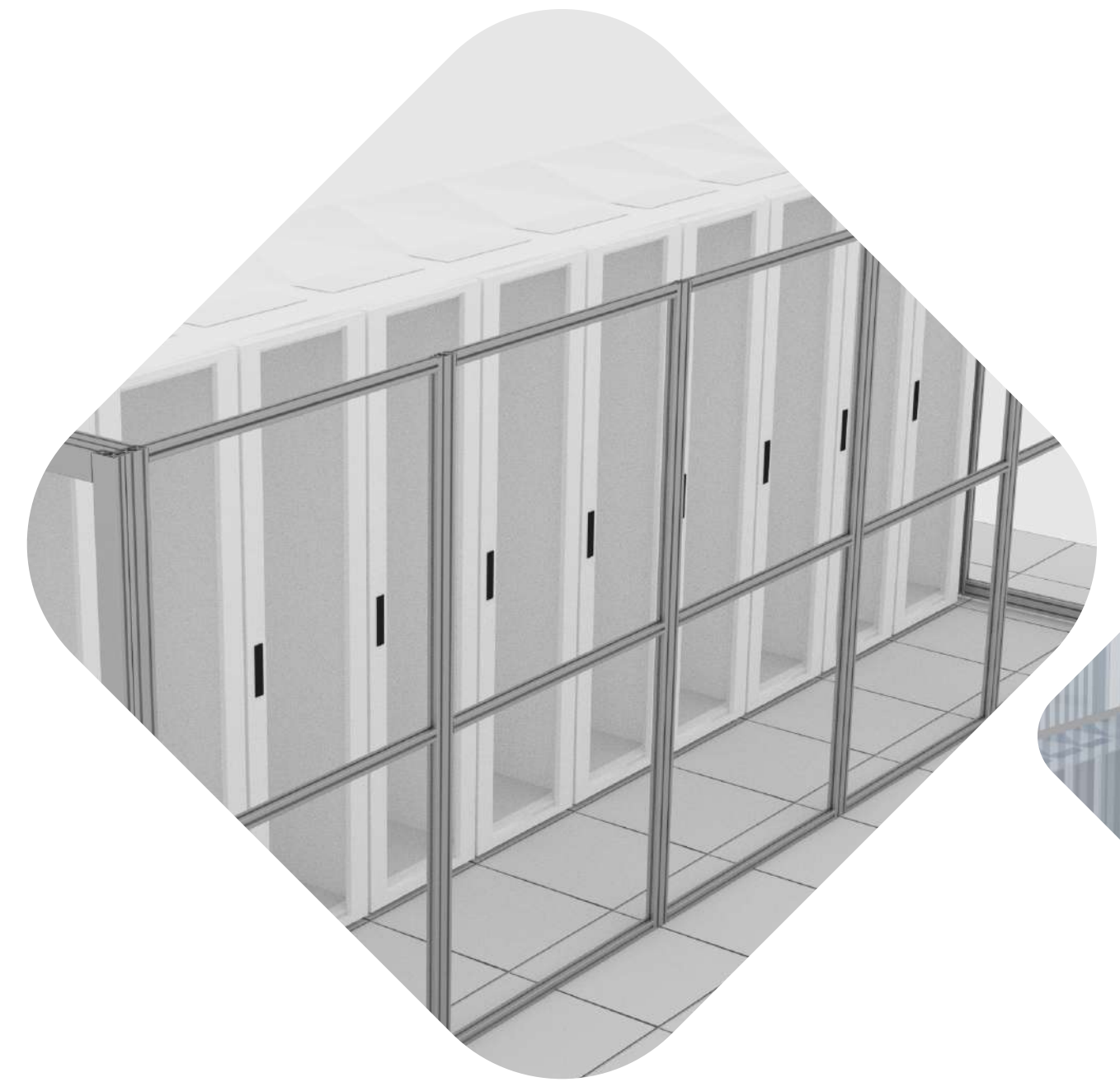
Air Infinity shall have the right to inspect any and all allegedly defective items on-site at purchaser's convenience

## 10. Disclaimer of Consequential Damages and Limitations of Implied Warranty

Air Infinity disclaims any responsibility for loss of time or use of parts or equipment wherein Air Infinity, components, or accessories are used, transportation or any other incidental or consequential damage; and any implied Warranties including the implied Warranty of merchantability and fitness for intended use are limited to the duration of this written warranty



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Designed & assembled by Air Infinity in Hong Kong.