

The Universal Interface for Industrial HVAC.

The Next Generation VRF Smart Thermostat.



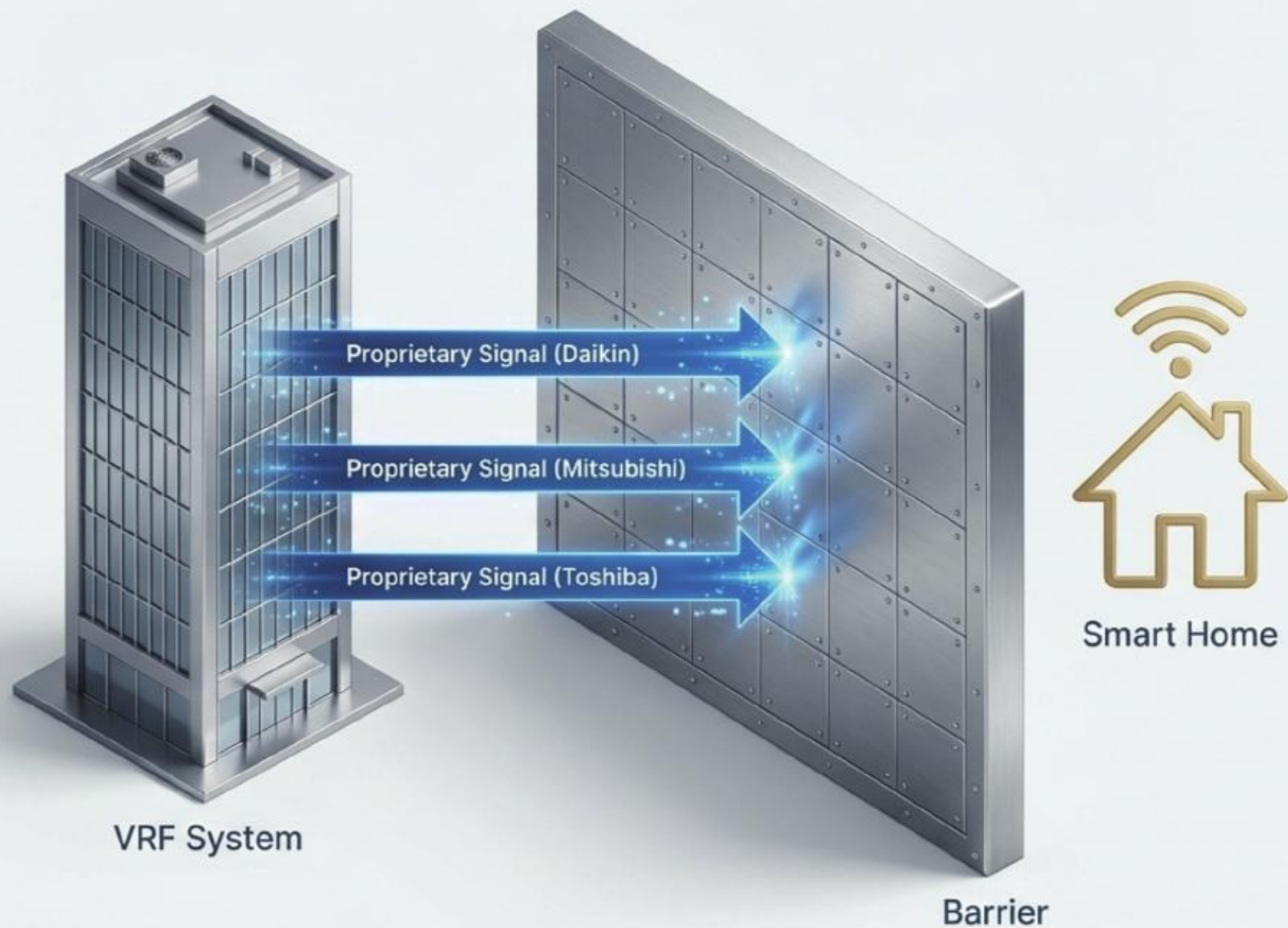
CAPACITIVE TOUCH

WIFI ENABLED

UNIVERSAL COMPATIBILITY

The Challenge: A Digital Walled Garden

VRF systems typically use closed, private digital communication protocols. This 'language barrier' makes third-party control impossible, effectively isolating powerful industrial cooling systems from modern smart home ecosystems.



Bridging Industrial Power and Smart Home Intelligence

The AE-VRF acts as a 'Universal Translator,' decoding complex industrial signals into a unified, user-friendly smart interface.

Modern Interface



Inter

Replacing archaic plastic buttons

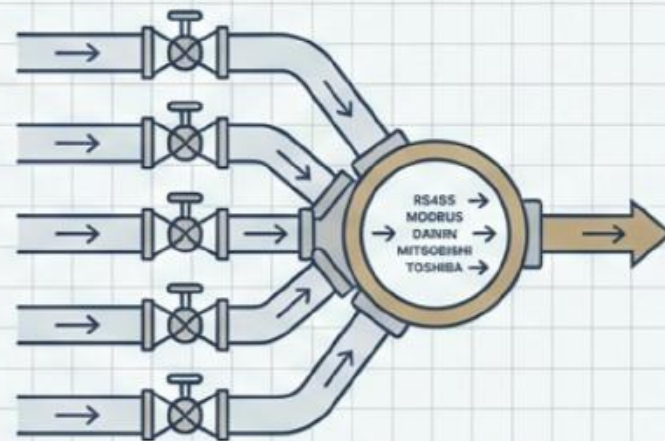
Built-in Intelligence



Inter

Tuya-driven seamless integration

Universal Protocols



Inter

Cross-brand engineering compatibility

Universal Wiring Architecture

Innovative engineering supports the industry's most common wiring configurations.



2-Core Cable

Supports P1/P2 or X/Y Signals
(Daikin, Hitachi, Toshiba,
Hisense, Mitsubishi Heavy Industries,
Gree, York)



3-Core Cable

Supports proprietary
communication lines
(Mitsubishi Heavy Industries,
Midea, Haier)



4-Core Cable

Supports complex data systems
(Daikin, Mitsubishi Electric,
Hitachi, Hisense, Gree, Midea, Haier)

Adaptive Signal Processing



Multiple Interfaces: Integrated X/Y, A/B, and P1/P2 interfaces allow the thermostat to adapt to different manufacturer protocols without external adapters.

Auto-Sensing Firmware: The device automatically detects baud rates and data packet structures based on the wiring configuration. No manual dip-switch settings required.

Extensive global brand integration

Manufacturer	Connection Type	Status
Daikin	2 cores(P1,P2)	✓ Supported
Hitachi	2 cores(P1,P2)	✓ Supported
Hitachi	4 cores(A1,B1,D-,D+)	! Check Specific Model
Hisense	2 cores(P1,P2)	✓ Supported
York	2 cores(P1,P2)	✓ Supported
Toshiba	2 cores(X,Y)	✓ Supported
Panasonic	2 cores(X,Y)	✓ Supported
Mitsubishi Heavy Industries	2 cores(P1,P2)	✓ Supported
Mitsubishi Heavy Industries	3 cores(A1&B1,D-,D+)	✓ Supported
Midea	4 cores(A1,B1,D-,D+)	! Check Specific Model

The data has been verified based on the AE-VRF compatibility matrix.

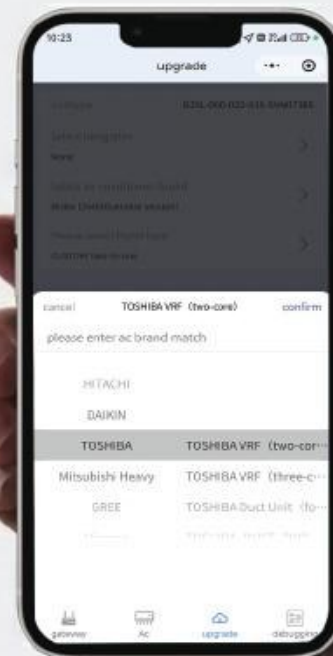
Manufacturer	Connection Type	Status
Midea	3 cores(A1,D-,D+)	✔ Supported
Gree	2 cores(P1,P2)	✔ Supported
Haier	3 cores(A,B,C)	❗ Check Specific Model
Haier	4 cores(A1&B1,D-,D+)CBA	❗ Check Specific Model
Haier	4 cores(A1&B1,D-,D+)CN4	✔ Supported
Gree	2 cores(H1,H2)	✔ Supported
Gree	4 cores(A1,B1,D-,D+)	❗ Check Specific Model
Daikin MX	4 cores(A1,B1,D-,D+)	❗ Check Specific Model
Mitsubishi Electric	4 cores(A1,B1,D-,D+)	✔ Supported
Hisense	4 cores(A1,B1,D-,D+)	✔ Supported

The data has been verified based on the AE-VRF compatibility matrix.

One SKU, Infinite Configurations



← AE-VRF
Single SKU



Simplify Inventory

Stock just one model (AE-VRF) to serve
Panasonic, Mitsubishi, Toshiba, Gree, and more.

Bluetooth Configuration

Installers use a mobile app to flash specific brand
protocols onto the device on-site, eliminating the
need for hardware adapters.

Powered by the Tuya Ecosystem



- ✓ **Immediate Compatibility:** Seamless integration with the Tuya global ecosystem.
- ✓ **App Control:** Full smartphone management via the Smart Life / Tuya App.
- ✓ **Voice Assistant:** Native support for Alexa, Google Assistant, and other smart home voice commands.
- ✓ **Automation:** Supports complex scheduling, geofencing, and scene setting.
- ✓ **Future Proof:** Supports OTA (Over-the-Air) firmware updates.

General advantages



Installer

Inventory simplification

Only one model (AE-VRF) needs to be reserved to serve systems such as Panasonic, Mitsubishi, Toshiba, Gree, etc. Eliminate the need for multiple protocol adapters.



AE-VRF
Single SKU



User

Unified high-quality experience

Replace the confusing beige industrial controllers with modern touch interfaces and app controls.



VRF thermostat Series: Integration of Intelligent Control and Aesthetics

Intelligent temperature control
solution for modern architecture

 exquisite craftsmanship

 diverse choices

 Intelligent Interaction



AE-5509-VRF

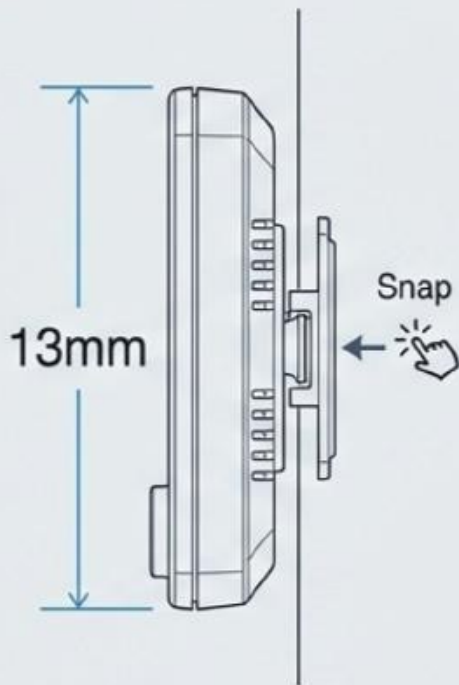
The two core dimensions of product matrix design

Noto Sans SC



Ultra Thin Advancement: Spanning from 13mm to 10mm

(Snap-on Installation)



Thickness: 13mm

Applicable models: AE-669K, AE-740, AE-940

Features: Stable and reliable, no need for special bottom box

(Magnetic Installation)



Thickness: 10mm

Applicable models: AE-5503, AE-5502, AE-5507, AE-5509

Features: Ultimate wall fit, flat visual experience

The Classic Series (AE-669K)

The Standard for Utility and Reliability



Screen Type:	LCD with curved glass design.
Mount:	Snap-on installation (13mm thickness).
Bezel Material:	Durable Plastic (Not upgradeable).
Use Case:	Ideal for large-scale projects prioritizing cost-effectiveness, stability, and retrofit compatibility.

The Architectural Series (AE-5503 / 5502)

Minimalist Aesthetics with Magnetic Precision.



Screen Type	LCD with flat tempered glass.
Mount	Magnetic installation (Ultra-thin 10mm profile).
Bezel Upgrade	Optional Aluminum Alloy frame.
Use Case	“Discard complexity, return to purity.” Designed for modern, minimalist interiors requiring a flush wall fit.

The Performance Series (AE-740 / 940)

Vivid Interaction for Standard Installs.



Screen Type:	TFT Color Display (Rich information visualization).
Mount:	Snap-on installation (13mm thickness).
Bezel Material:	Durable Plastic.
Use Case:	Offers a richer human-machine interaction experience while maintaining the compatibility of the standard snap-on base.

The Flagship Series (AE-5507 / 5509)

The Ultimate Fusion of Art and Technology.



Screen Type: High-resolution **TFT Color Display**.

Mount: Magnetic installation (Ultra-thin **10mm** profile).

Bezel Upgrade: Optional **Aluminum Alloy** frame.

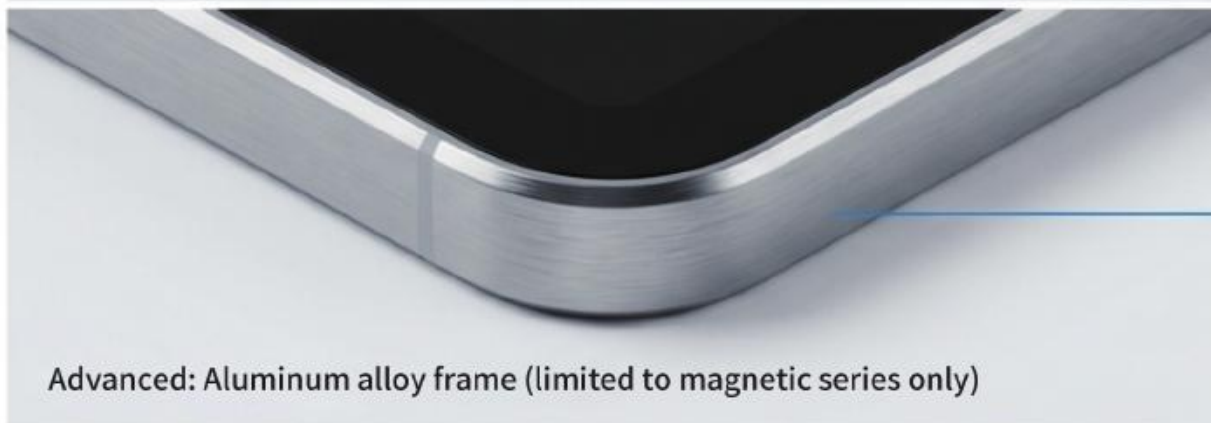
Design: Flat tempered glass surface.

Use Case: Designed for luxury homes and landmark buildings where no compromise is accepted.

Material aesthetics: upgraded texture of aluminum alloy frame



Standard configuration: Exquisite plastic frame (applicable to the entire series)



Advanced: Aluminum alloy frame (limited to magnetic series only)

(Snap-on Models) :

AE-669K, AE-740, AE-940

(Magnetic Models) :

AE-5503, AE-5502, AE-5507,
AE-5509

Provide aluminum alloy frame options for customers who pursue ultimate texture, giving the product a stronger metallic texture and durability (limited to 10mm magnetic suction version only)

Color Philosophy: Incorporating Any Design Style



Elegant Black



Pure White



Tech Silvery



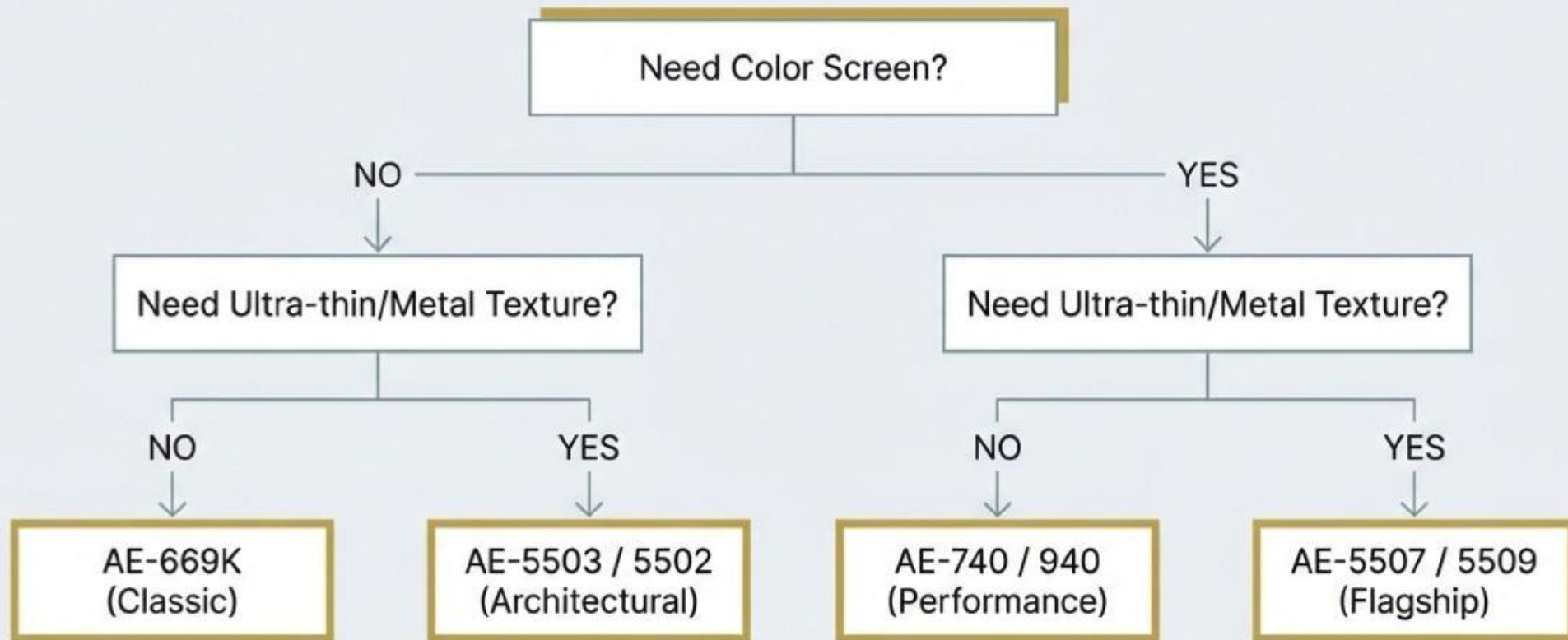
Glow Golden

All models in the series offer four classic color schemes to meet the needs of different interior decoration styles.

Comparison of specifications and parameters across the entire series

	Classic	Architectural		Performance		Flagship	
Display	AE-669K	AE-5503	AE-5502	AE-740	AE-940	AE-5507	AE-5509
Install	LCD	LCD	LCD	TFT	TFT	TFT	TFT
Thickness	Snap-on	Magnetic	Magnetic	Snap-on	Snap-on	Magnetic	Magnetic
Screen body	13mm	10mm	10mm	13mm	13mm	10mm	10mm
Border upgrade	Curved	Straight	Straight	Curved	Curved	Straight	Straight
Upgrade aluminum alloy		✓	✓			✓	✓

Selection Guide: Finding Your Perfect Match



From practical utility to luxury experience, there is a tailored solution for every project.