



For Air Conditioning Unit

Drain Trap with Float Ball



*High-quality, high-performance traps
that protect indoor air quality*



Leading brand of Drain Trap for air conditioning that continues to lead the industry.



Float-ball type air backflow prevention valve even when the sealing water is gone.

A-Trap

Drain trap for medium and large air conditioners. Two check valves prevent backflow of odor even in high static pressure operation.

- Installation target Air handling units <Medium to large air conditioning units>
- Installation location Machine room
- Installation method Floor-mounted
- Connection caliber 32A, 40A, 50A



C-Trap

Drain trap for small air conditioners. Compact size allows for easy installation in confined spaces such as behind ceilings.

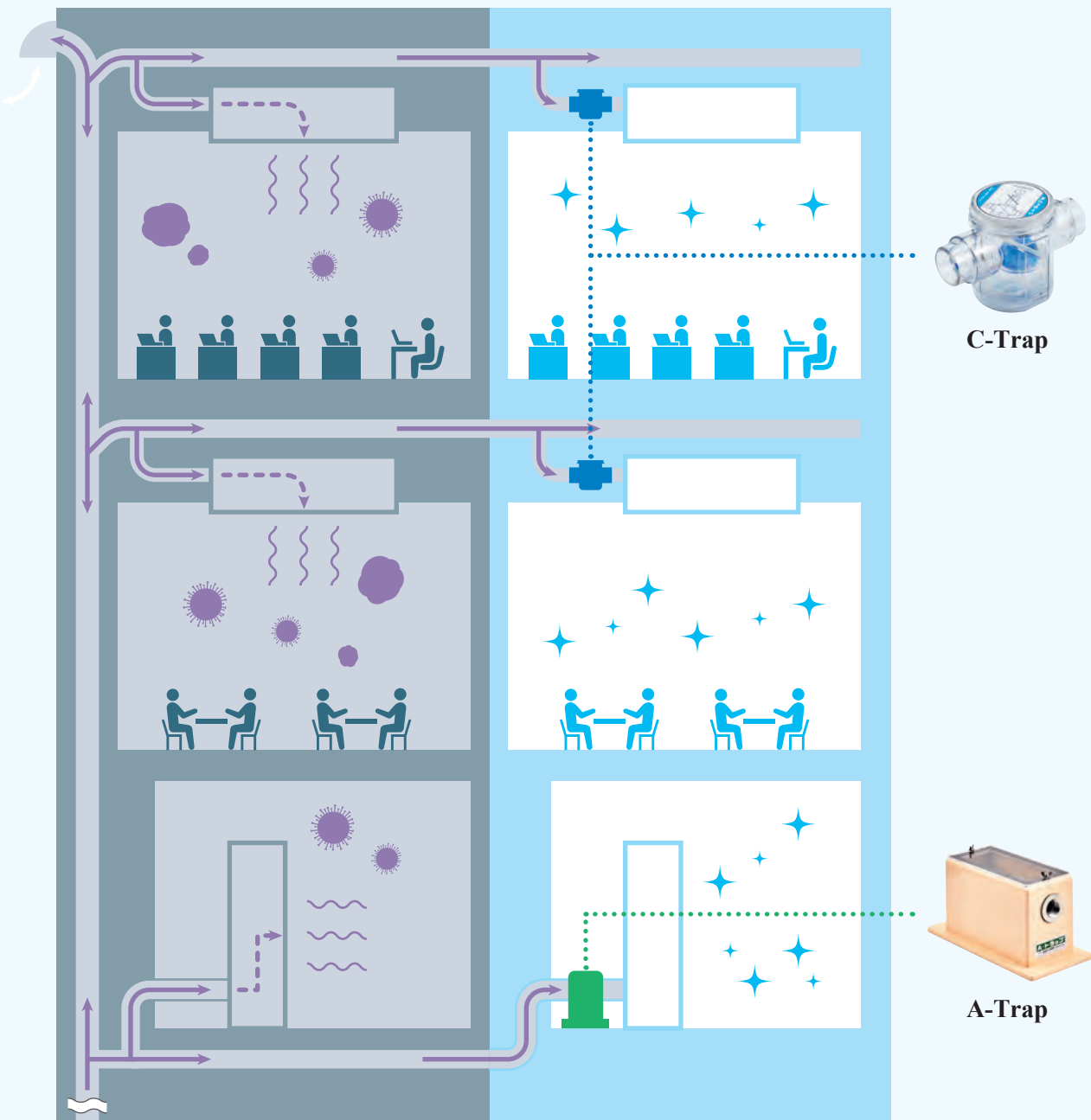
- Main installation target Fan coil units, indoor units of multi air conditioners, floor-mounted packaged air conditioners <small air conditioners> (Static pressure at drain port: 0 to -1000 Pa)
- Installation location In the ceiling, in the pipe shaft, etc.
- Installation method Piping built-in
- Connection caliber 25A, 30A, 40A, 50A



Did you know?

Contaminated air also moves through the drain pipes.

Condensation from air conditioners flows through drainage pipes into drainage pits. Simultaneously, contaminated air from the atmosphere can also flow through these pipes toward indoor spaces. To maintain indoor air quality, it is essential to prevent odors and insects from entering through the drainage system.



Installation and construction of drainage and other piping facilities in buildings should be in accordance with Notification No. 243 of the Japanese Ministry of Land, Infrastructure, Transport and Tourism.

Float-ball type
Drain Trap for medium and large air conditioners

A-Trap

For Clean Air

The "A-Trap" is a floor-mounted, box-type drainage trap designed for air conditioners. Its rational design, featuring two check valves, provides excellent deodorizing and insect-repellent effects, even without sealing water. The simple body structure allows for easy maintenance, inspection, and cleaning, and it has demonstrated exceptional durability over the past 30 years.

Easy maintenance, inspection, and cleaning

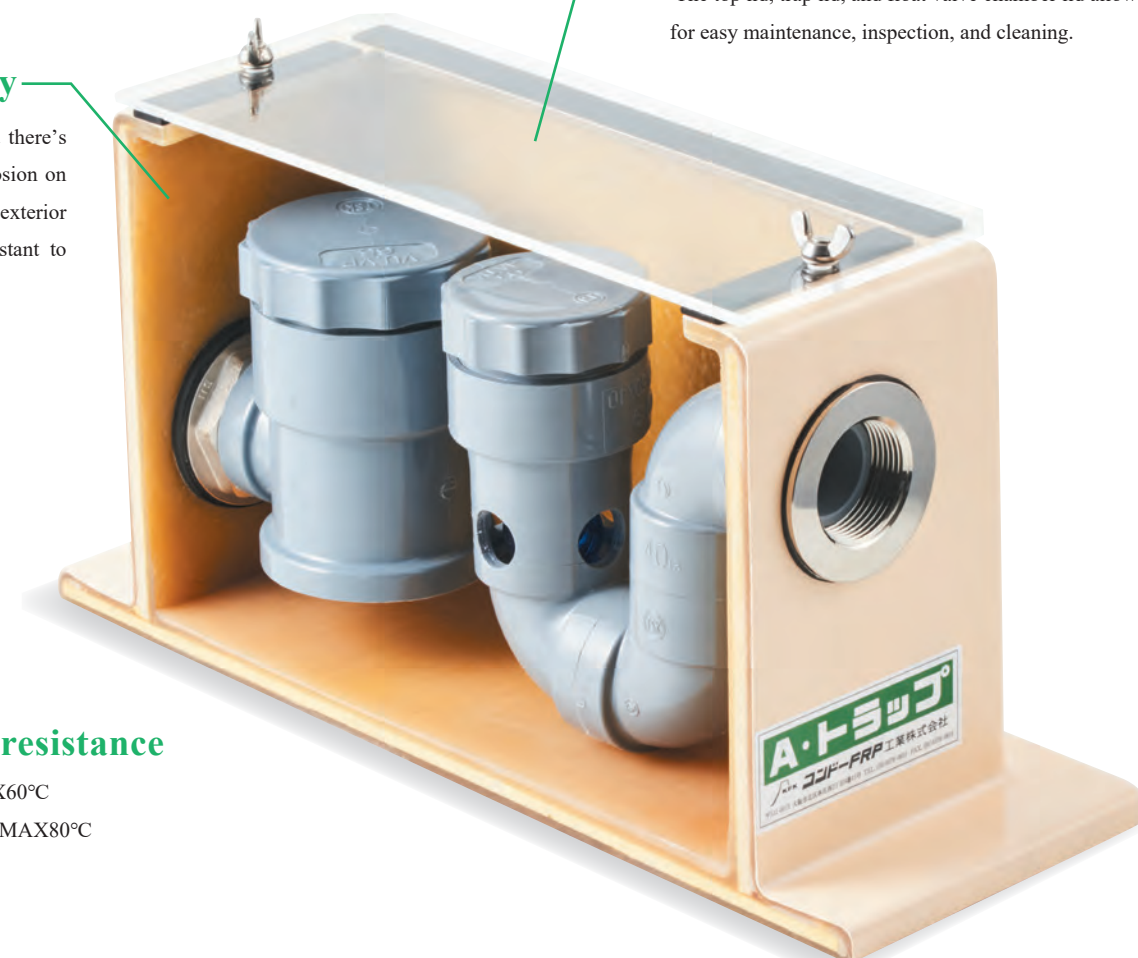
The top lid, trap lid, and float valve chamber lid allow for easy maintenance, inspection, and cleaning.

FRP Body

FRP doesn't rust, and there's no concern about corrosion on either the interior or exterior surfaces. It's also resistant to condensation.

High heat resistance


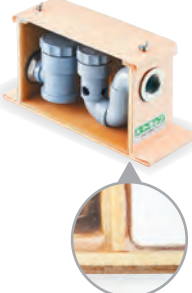

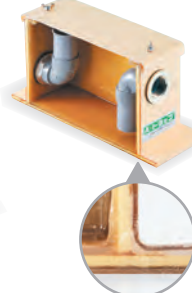








Standard type MAX60°C
Heat-resistant type MAX80°C



F-ATSW32T
(A cutaway model of the actual product.)

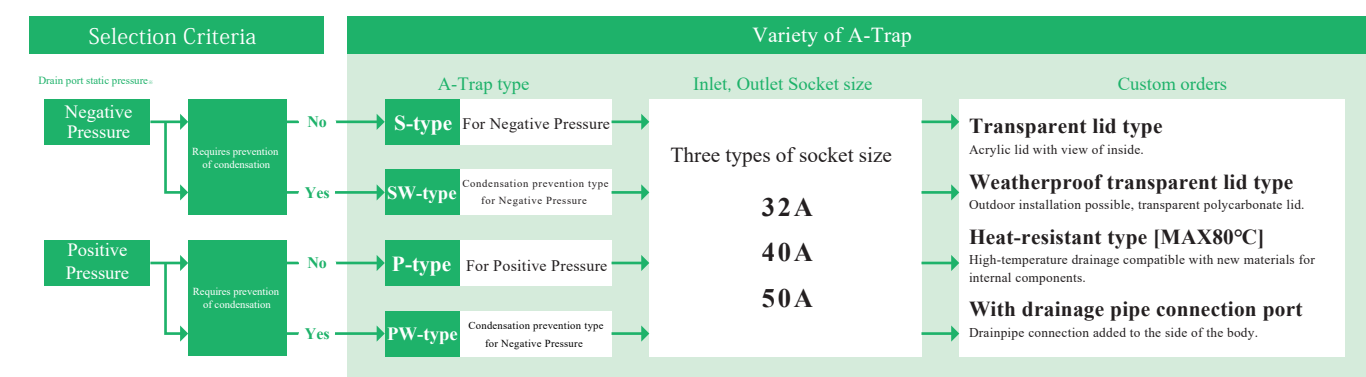


Product Lineup

Static Pressure	S-type for Negative pressure	P-type for Positive pressure
FRP Condensation prevention type	  F-ATSW 32/40/50	  F-ATPW 32/40/50
FRP	  F-ATS 32/40/50	  F-ATP 32/40/50
SUS Condensation prevention type	  S-ATSW 40/50	  S-ATPW 40/50

Types of A-Trap and Selection flow

- We offer two types of A-trap, S-type and P-type, and they are selected according to the type of air conditioner to be installed.
- Select a "Condensation prevention type" with heat-insulating material on A-trap body when condensation countermeasures are required.
- There are three different socket sizes available.
- Four types of Custom order products are available.



※See installation examples in the technical data (p. 11) for distinction of static pressure at the drain port.

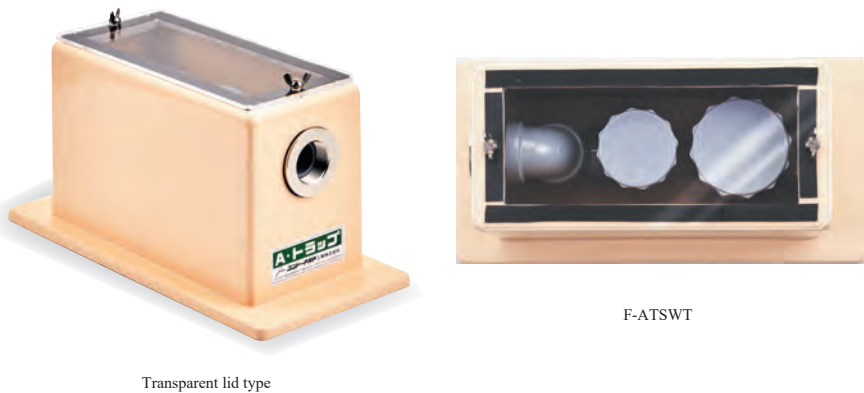
Custom orders

Transparent lid type

Acrylic lid with view of inside

Weatherproof transparent lid type

Outdoor installation possible, transparent polycarbonate lid



F-ATSWT

Heat-resistant type

High-temperature drainage compatible with new materials for internal components [60°C→80°C]

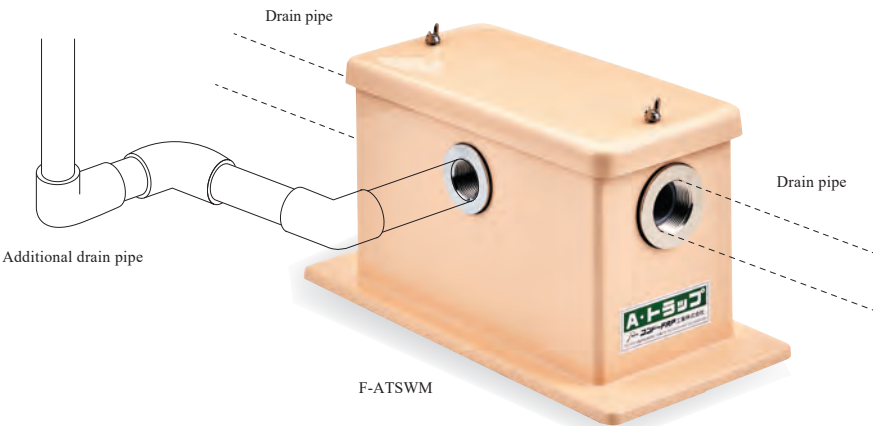


F-ATPWH

F-ATSWH

With drainage pipe connection port

Drain pipe connection via additional port from air conditioner
Size 15-50A x 1 or 2 locations



F-ATSWM

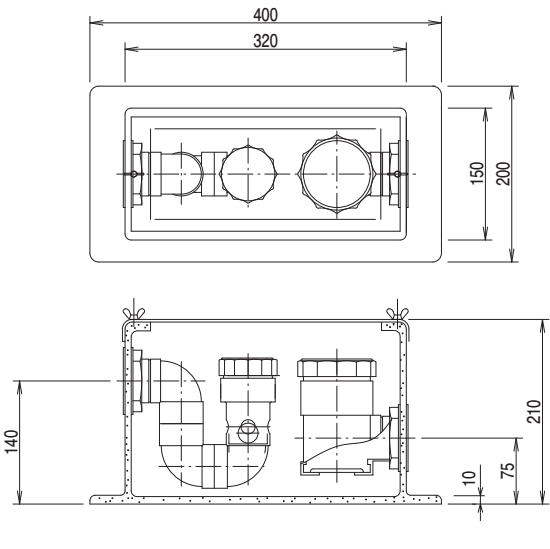
A-Trap S-type Suitable static pressure range 0 ~ -3000Pa

Scan here to download the drawing.



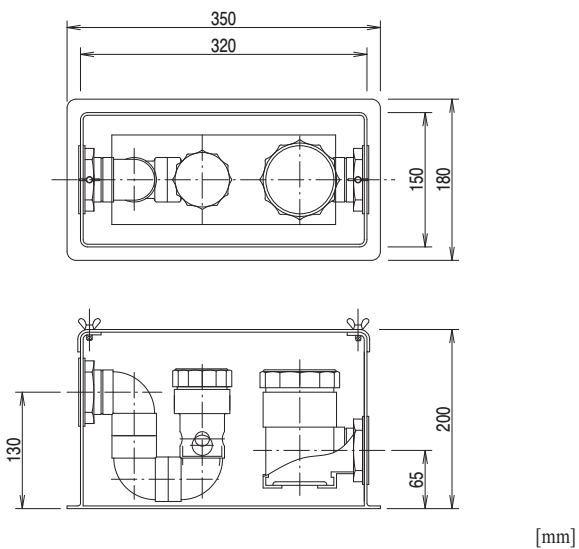
F-ATSW32 / F-ATSW40 / F-ATSW50

SW-type For Negative pressure



F-ATS32 / F-ATS40 / F-ATS50

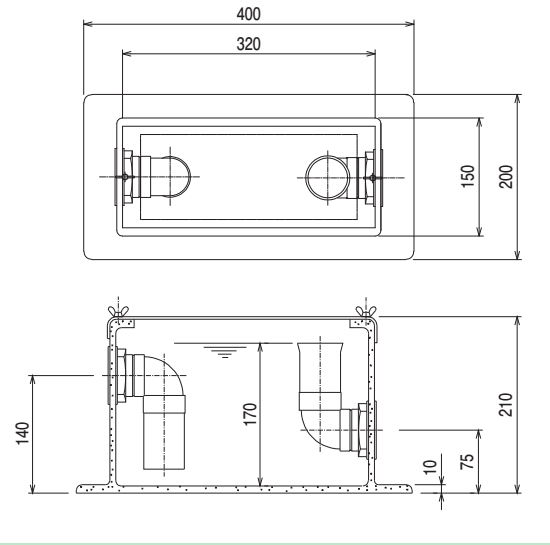
S-type For Negative pressure



A-Trap P-type Suitable static pressure range 0 ~ +1450Pa

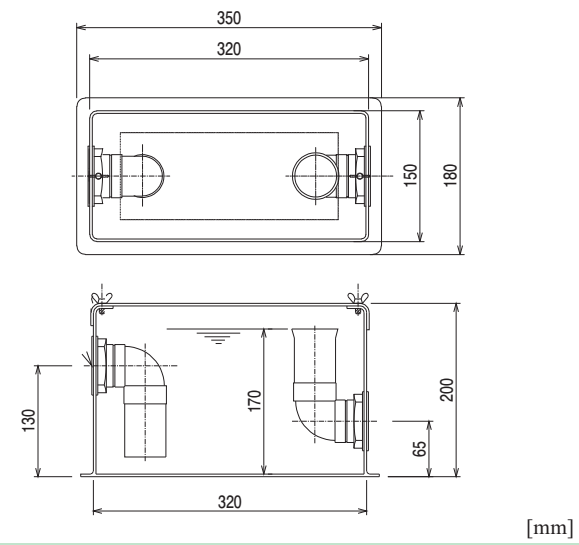
F-ATPW32 / F-ATPW40 / F-ATPW50

PW-type For Positive pressure



F-ATP32 / F-ATP40 / F-ATP50

P-type For Positive pressure



Specification

Materials	Body, Lid	FRP / SUS
	Trap, Float valve chamber, Outlet pipe	PVC / CPVC
	Special Float Ball	Polycarbonate
	Float valve	Polyethylene
	Wing bolt	SUS
	Inlet, Outlet Socket	BS (Internal thread) / SUS (Internal thread)



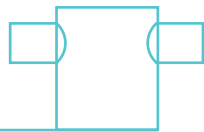
Precautions for installation and handling

- The heat resistance temperature is 60°C. (Heat-resistant type: 80°C)
- The maximum drainage capacity is 20L / min.
- Please ensure that this trap is not installed in a way that creates a double trap with other traps.
- Avoid using it in locations where there is a risk of freezing, exposure to high temperatures, or potential impact.
- This product does not completely prevent the backflow of gases and liquids.
- Please ensure that you follow the specified connection method during installation.
- Regular cleaning is necessary, as dirt and debris may cause blockages.
- Please be cautious of similar products and those with similar names.
- For more detailed information, please refer to the instruction manual.



Float-ball type
Drain Trap for small air conditioners

C-Trap



Compact size of trap for various situation

In many cases, small air conditioning units for individual spaces are not equipped with measures to prevent air backflow from drainage pipes. By installing a "C-Trap" in each air conditioner, air backflow can be prevented, helping to maintain air quality in the room. Additionally, the "C-Trap" is versatile and can be used for various applications, such as draining automatic air vent valves and discharging expansion water from electric water heaters.

Including heat insulation to insulate uninsulated areas

Heat insulation is included to ensure that uninsulated areas, created when connecting rigid PVC pipes with condensation-preventing layers, can be easily insulated.



Prevention of condensation by double-layered construction

Condensation prevention type can be installed as-is without the need for additional insulation. The transparent design makes it easy to check for any internal contamination.

High heat resistance

Condensation prevention type, Standard type, Weatherproof type
<MAX90°C>

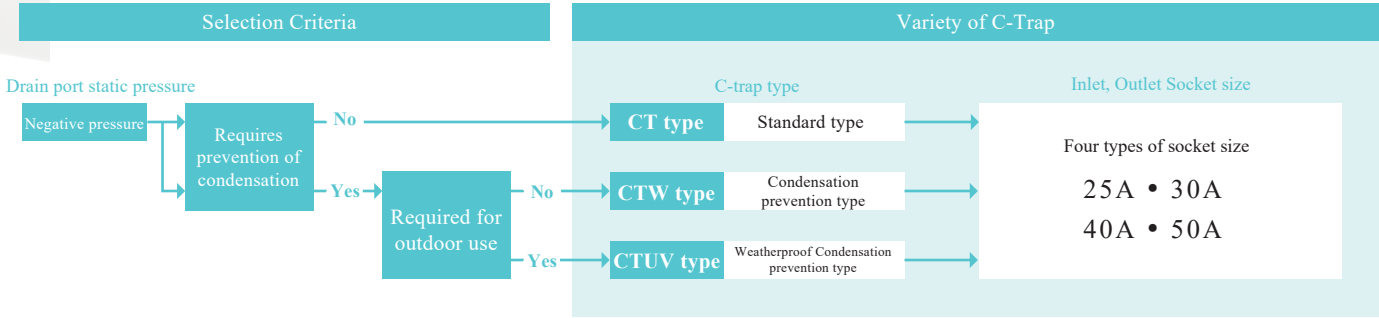
Light-reflective tape for easy identification even in concealed areas

Product Lineup

Connection Diameter	25 A	30 A	40 A	50 A
Weatherproof Condensation Prevention type 	 F-CTUV25	 F-CTUV30	 F-CTUV40	 F-CTUV50
Condensation Prevention type 	 F-CTW25	 F-CTW30	 F-CTW40	 F-CTW50
Standard type 	 F-CT25	 F-CT30	 F-CT40	 F-CT50

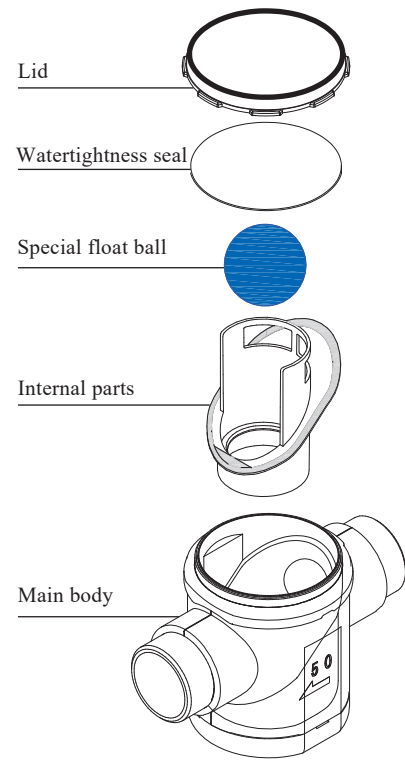
The type of C-trap and Selection flow

- There are three types of C-trap: "Standard type", "Condensation prevention type", Weatherproof condensation prevention type".
- Select a "Condensation prevention type" with a heat-insulating performance for the C-trap body if condensation countermeasures are required,
- There are four different socket sizes available.

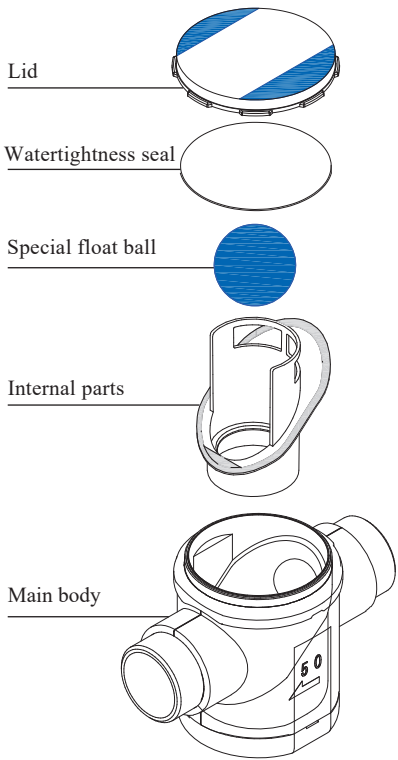


Structural Diagram

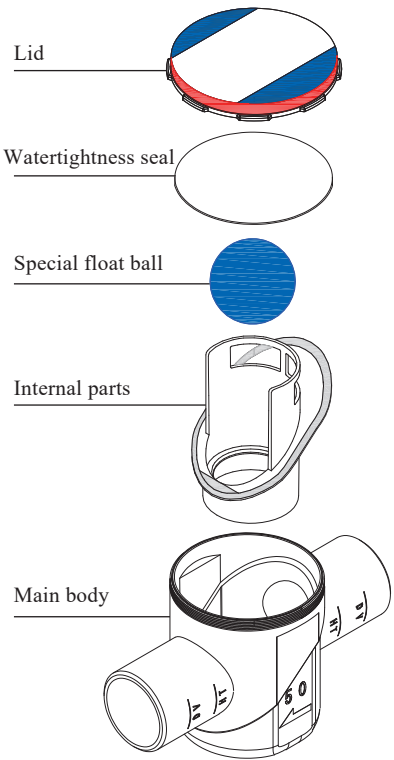
Weatherproof condensation prevention type



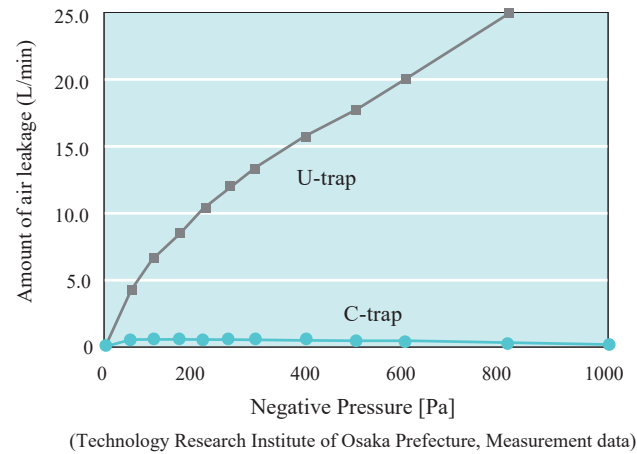
Condensation prevention type



Standard type



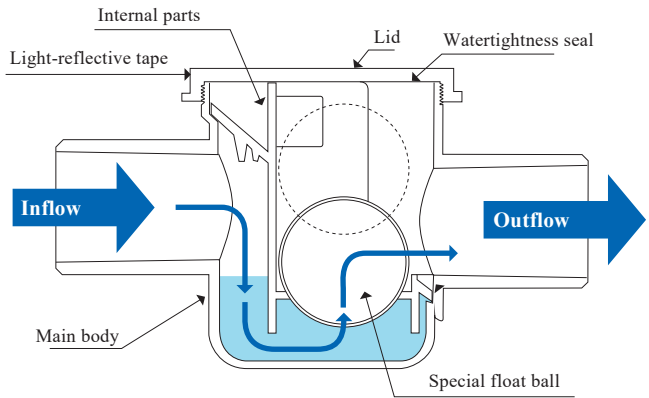
Performance



Additional uses

- A trap for draining expansion water from electric water heaters and Eco Cute systems
- A trap for draining condensate from latent heat recovery-type gas water heaters
- A trap for draining water from refrigeration and display cases
- A trap for draining water from ice makers
- A trap for draining water from automatic air vent valves

Drainage flow



※The internal parts can be detached simply by sliding them up and down, along with the special float ball.

C-trap Suitable static pressure range 0 ~ -1000Pa

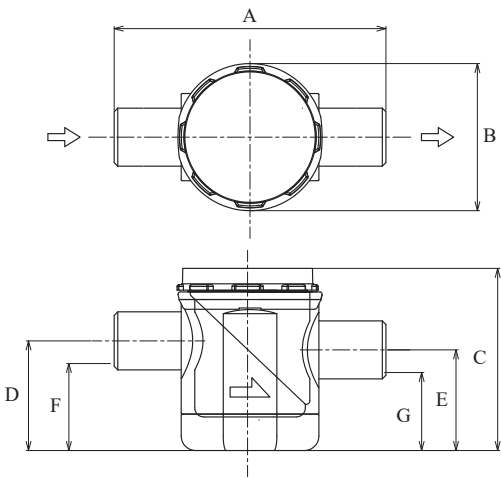
(Condensation prevention type, Weatherproof condensation prevention type)

Scan here to download the drawing.



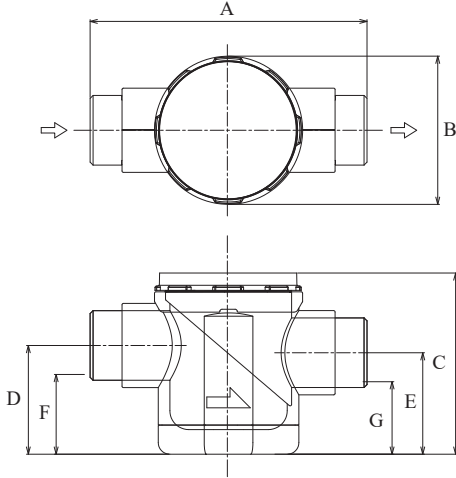
F-CTW25 / F-CTW30
F-CTUV25 / F-CTUV30

For Negative Pressure



F-CTW40 / F-CTW50
F-CTUV40 / F-CTUV50

For Negative Pressure



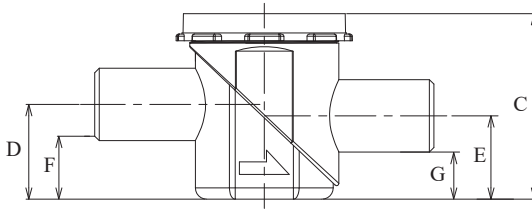
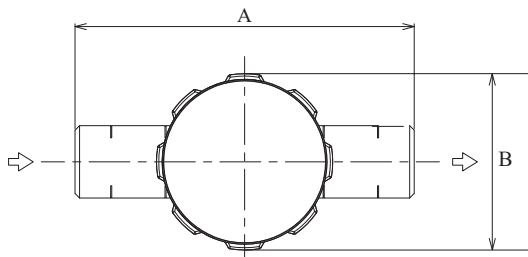
Model	Size [mm]							Connection diameter	Weight (g)	Quantity Per Unit
	A	B	C	D	E	F	G			
F-CTW25 / F-CTUV25	150	Φ81	101	61	56	48	43	25A	265	30
F-CTW30 / F-CTUV30	158	Φ81	106	69	64	53	48	30A	280	30
F-CTW40 / F-CTUV40	191	Φ102	125	75	70	55	50	40A	500	20
F-CTW50 / F-CTUV50	219	Φ120	144	86	81	61	56	50A	730	20

※The connection port is the same diameter as the pipe diameter.

C-trap (Standard type) Suitable static pressure range 0 ~ -1000Pa

F-CT25 / F-CT30 / F-CT40 / F-CT50

For Negative Pressure



Model	Size [mm]							Connection diameter	Weight (g)	Quantity Per Unit
	A	B	C	D	E	F	G			
F-CT25	150	Φ78	82	42	37	29	24	25A	160	50
F-CT30	158	Φ78	87	50	45	35	30	30A	175	50
F-CT40	191	Φ101	108	58	53	38	33	40A	300	30
F-CT50	219	Φ119	127	69	64	44	39	50A	450	30

※The connection port is the same diameter as the pipe diameter.



Precautions for installation and handling

- The heat resistance temperature is 90°C.
- Please ensure that this trap is not installed in a way that creates a double trap with other traps.
- Avoid using it in locations where there is a risk of freezing, exposure to high temperatures, or potential impact.
- This product does not completely prevent the backflow of gases and liquids.
- Please ensure that you follow the specified connection method during installation.
- Regular cleaning is necessary, as dirt and debris may cause blockages.
- Please be cautious of similar products and those with similar names.
- For more detailed information, please refer to the instruction manual.

Specification

Materials	Body, Lid	Polycarbonate
	Internal parts	Polycarbonate
	Special float ball	Polycarbonate
	Watertightness seal	Elastomer

〈How to select A-trap and C-trap〉

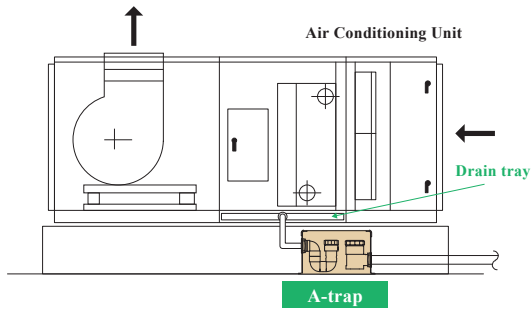
Calculation formula for static pressure
at drain outlet of the Air Conditioning Unit

Static pressure at drain outlet of the Air Conditioning Unit

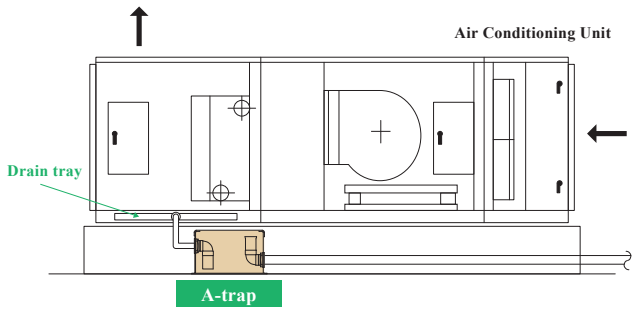
= Total Static Pressure of the Air Conditioning Unit- (External Static Pressure/2)

A-trap

Installation
examples

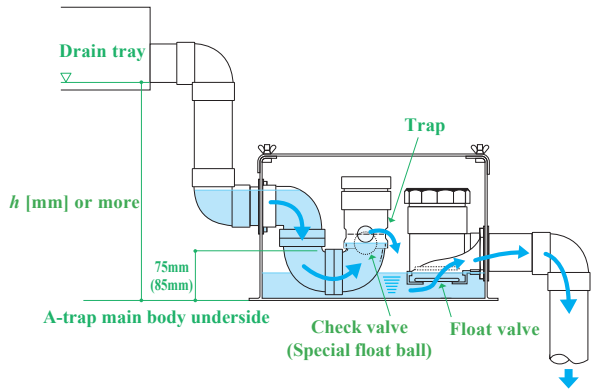


S-type, SW-type (For Negative pressure)



P-type, PW-type (For Positive pressure)

Installation
methods



For S-Type and SW-Type

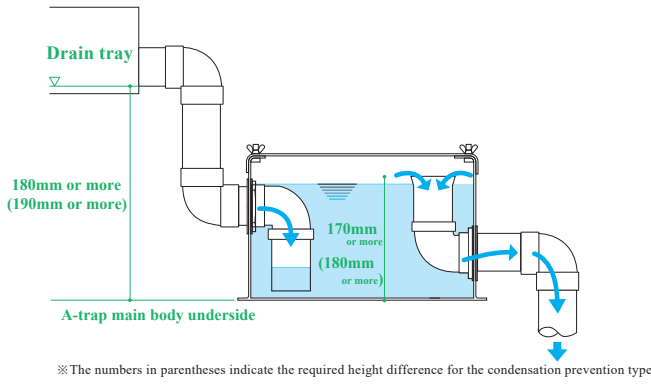
For both types, ensure a drop exceeding the static pressure of the drain outlet. For installation, add 75 mm for the S type and 85 mm for the SW type.

Calculation formula for
h dimension (SW-type) In case of Total Static Pressure 1250Pa,
External Static Pressure 500Pa

$$h \text{ dimension (mm)} \geq \text{Static pressure at drain outlet(Pa)} / 9.8 + \text{Additional height (mm)}$$

$$188 \geq (1250 - 500 / 2) / 9.8 + 85$$

∴ h dimension requires 188mm or more

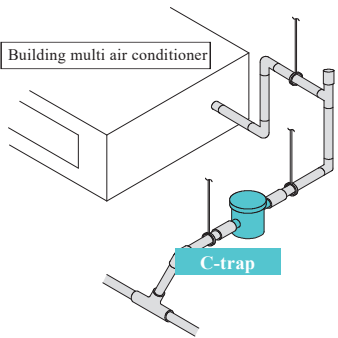
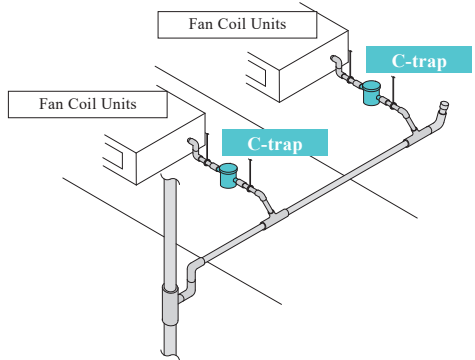


For P-type and PW-type

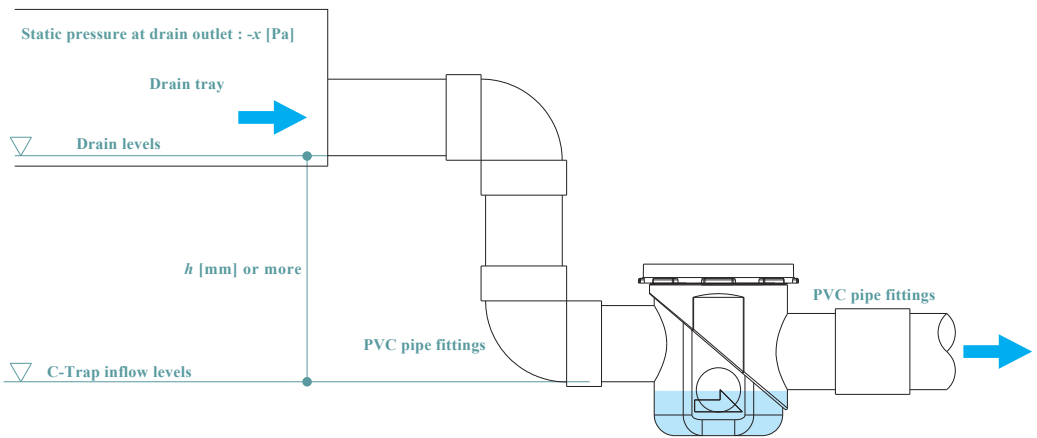
Both types are available with up to +1450 Pa of static pressure at the drain outlet. For requirements above +1450 Pa, custom-made options are available.

※Fill the A-Trap body with water up to the top of the parts on the outflow side of the unit before starting operation of the air conditioner. Filling the unit with water forms a water seal and prevents air from flowing out.

C-trap



Connection to the drain pump



For C-trap

Height dimension is required according to static pressure at drain outlet of the air conditioner to be connected.

Calculation formula for
h dimension of C-trap

In case of Total Static Pressure 400Pa,
External Static Pressure 200Pa

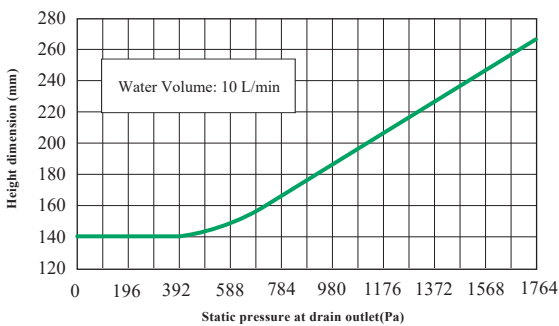
$$h \text{ dimension (mm)} \geq \text{Static pressure at drain outlet(Pa)} / 9.8$$

$$31 \geq (400 - 200 / 2) / 9.8$$

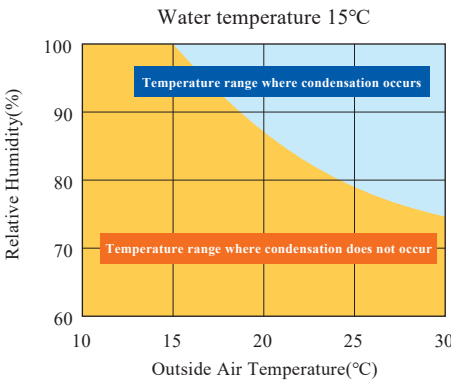
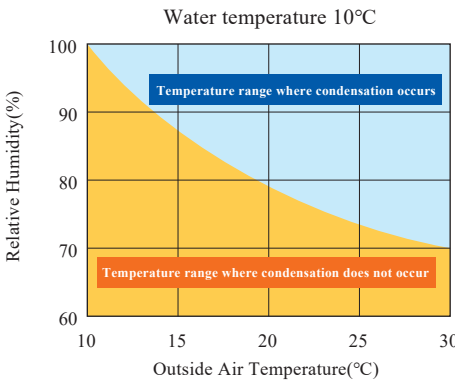
∴ h dimension requires 31mm or more.

Performance

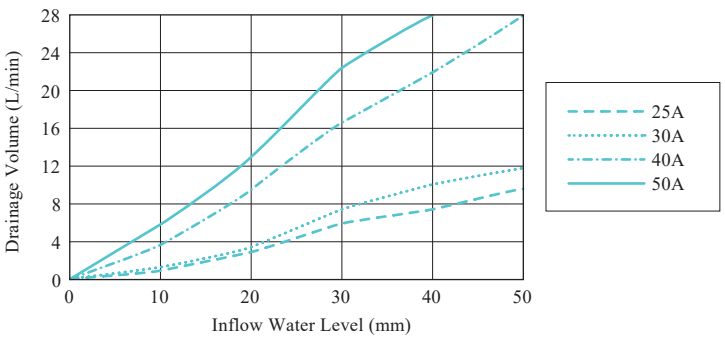
Correlation between static pressure at drain outlet and height dimension in A-trap
(h: height from A-trap main body underside to air conditioner drain tray)



Insulation performance [For A-trap condensation prevention type and C-trap condensation prevention type]



Drainage Capacity of C-Trap



Q & A

A-trap

- Q** What is the difference between the model numbers of the condensation prevention type and the standard type of A-Trap?

The condensation prevention type is marked with [W] in the model number. The condensation prevention type is F-ATSW (S type) and F-ATPW (P type), and the standard product is F-ATS (S type) and F-ATP (P type).
- Q** How is A-trap installed?

It is a floor-mounted type, and the main body does not require fixing.
- Q** How is A-trap connected?

The connection port of the FRP body has brass female threads, while the SUS body has SUS female threads. Use male threaded fittings and piping made of the appropriate material for each connection.
- Q** Is it OK to combine multiple drain outlets from an Air conditioning unit into a single drain trap unit?

In general, a drain trap should be installed for each drain outlet. This is because even a single air conditioner can cause drainage issues due to differences in static pressure at each outlet.
- Q** Is insulation required for S-types and P-types?

If condensation prevention is necessary, insulation is required. However, by using SW-type or PW-type traps, insulation measures are generally not needed.
- Q** What is the heat resistance temperature?

The standard product is heat resistant up to 60°C, but a custom-order heat-resistant type, capable of withstanding up to 80°C, is also available.
- Q** Is maintenance required?

Please regularly check for internal dirt and clean it as necessary.

C-trap

- Q** What is the difference between the model numbers of C-trap condensation prevention, standard, and weatherproof condensation prevention types?

The condensation prevention type has [W] in the model number and is called F-CTW, the weatherproof condensation prevention type has [UV] and is called F-CTUV, and the standard type is called F-CT.
- Q** How is C-trap connected?

The connection port on the C-Trap has the same diameter as a PVC pipe, so please use PVC pipe fittings for connection.
- Q** Is it necessary to install a drain trap when a drain pump is connected?

If the drain pump does not have a built-in check valve, air may flow backward, so it is necessary to install a drain trap.
- Q** Does the F-CT model require insulation work?

If dew condensation is a concern, heat insulation is necessary. However, if the F-CTW model is used, heat insulation is generally not required.
- Q** Is it possible to connect to steel pipes?

Yes, it is possible. Please use valve sockets, MD joints, or flanges for connections.
- Q** Is it possible to install the C-Trap vertically

It is not possible to change the orientation of the C-Trap to connect it vertically. For details on installation, please contact us.
- Q** Is maintenance required?

Please regularly check for internal dirt and clean it as necessary.

Legal Guides

Please refer to the Technical Information page of our website for information on laws and regulations related to Drain trap.

Scan here to access the technical information page.



Standard Price List

(All listed prices are exclusive of tax)

A-trap

Specification	Type	Model number	Socket size	Measurement [mm]	Standard price
FRP Condensation prevention type	SW-type (Negative pressure)	F-ATSW32	32A	400×200×210H	64,000 yen
		F-ATSW40	40A	400×200×210H	64,000 yen
		F-ATSW50	50A	400×200×210H	68,000 yen
	PW-type (Positive pressure)	F-ATPW32	32A	400×200×210H	64,000 yen
		F-ATPW40	40A	400×200×210H	64,000 yen
		F-ATPW50	50A	400×200×210H	68,000 yen
FRP	S-type (Negative pressure)	F-ATS32	32A	350×180×200H	42,000 yen
		F-ATS40	40A	350×180×200H	42,000 yen
		F-ATS50	50A	350×180×200H	46,000 yen
	P-type (Positive pressure)	F-ATP32	32A	350×180×200H	42,000 yen
		F-ATP40	40A	350×180×200H	42,000 yen
		F-ATP50	50A	350×180×200H	46,000 yen
SUS Condensation prevention type	S-SW-type (Negative pressure)	S-ATSW40	40A	405×195×210H	98,000 yen
		S-ATSW50	50A	405×195×210H	98,000 yen
	S-PW-type (Positive pressure)	S-ATPW40	40A	405×195×210H	98,000 yen
		S-ATPW50	50A	405×195×210H	98,000 yen

Custom orders

Specification	Mark	Detail	Standard price
Transparent lid	T	Acrylic lid with view of inside.	4,000 yen
Weatherproof transparent lid	UV	Outdoor installation possible, transparent polycarbonate lid.	6,000 yen
Heat-resistant type	H	High-temperature drainage compatible with new materials for internal components.	20,000 yen
With drainage pipe connection port	M	Drainpipe connection added to the side of the body.	6,000 yen per unit

Please add a custom-order mark after the main unit model number when ordering a custom-ordered A-trap.

A-Trap, S-type, 40A, with transparent lid, heat-resistant type



C-trap

Specification	Type	Model number	Socket size	Measurement [mm]	Standard price
Weatherproof condensation prevention type	25A type	F-CTUV25	25A	150×φ81×101H	18,000 yen
	30A type	F-CTUV30	30A	158×φ81×106H	20,000 yen
	40A type	F-CTUV40	40A	191×φ102×125H	23,000 yen
	50A type	F-CTUV50	50A	219×φ120×144H	27,000 yen
Condensation prevention type	25A type	F-CTW25	25A	150×φ81×101H	15,000 yen
	30A type	F-CTW30	30A	158×φ81×106H	16,500 yen
	40A type	F-CTW40	40A	191×φ102×125H	19,500 yen
	50A type	F-CTW50	50A	219×φ120×144H	23,000 yen
Standard type	25A type	F-CT25	25A	150×φ78×82H	12,000 yen
	30A type	F-CT30	30A	158×φ78×87H	13,500 yen
	40A type	F-CT40	40A	191×φ101×108H	16,000 yen
	50A type	F-CT50	50A	219×φ119×127H	19,000 yen

※The connection port is the same diameter as the pipe diameter.

For sizes over 65A, custom production is available upon request. Please feel free to contact us.

※Product specifications and prices are subject to change without notice.