

Toshiba Premium



Dimensions



DAISEIKAI



INVERTER HEAT PUMP



Dim: 293H x 851W x 270D

Model Name FCU
RAS-25PKVPG-ND
RAS-35PKVPG-ND

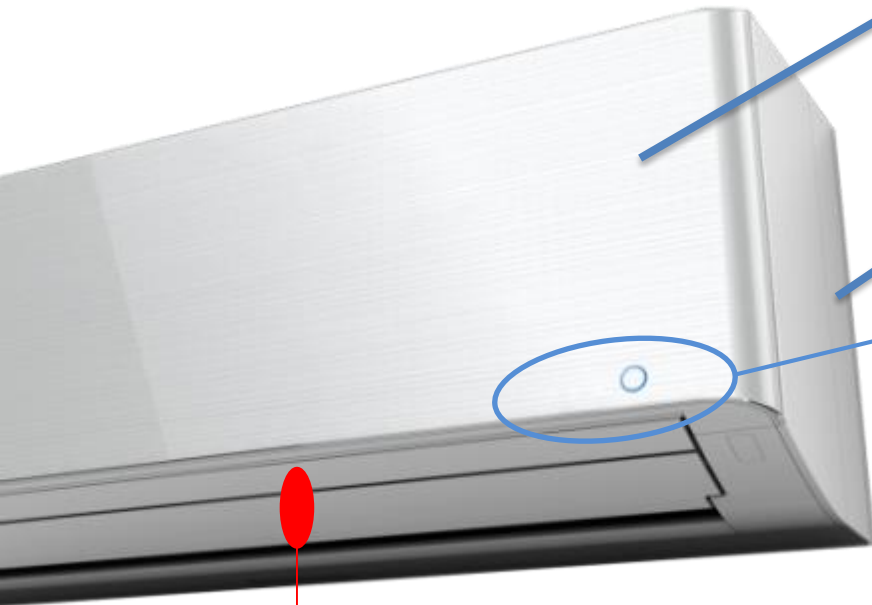


Dim: 630H x 800W x 300D

Model Name CDU
RAS-25PAVPG-ND
RAS-35PAVPG-ND

New Modern Design

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Wooden texture reflect luxury feeling

Harmonized white in all surface

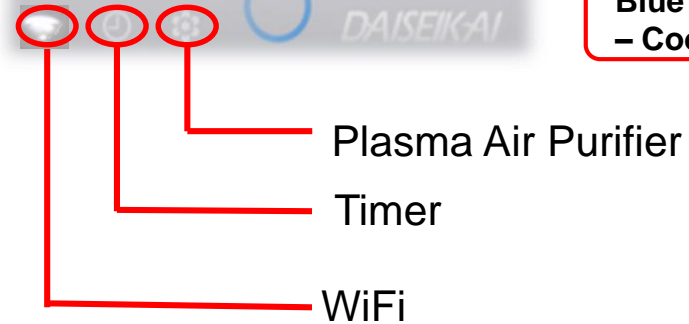
Illuminated / discrete LED design



Orange
- Heating mode



Blue
- Cooling mode



Auto. Horizontal & Vertical Dream Louver

Top-class energy efficient **TOSHIBA** Leading Innovation >>>

A+++ entire lineup!!



Outdoor unit		RAS-25PAVPG-ND	RAS-35PAVPG-ND
Indoor unit		RAS-25PKVPG-ND	RAS-35PKVPG-ND
Cooling capacity	kW	2.5	3.5
Cooling range (min. - max.)	kW	0.9 - 3.50	0.9 - 4.1
Power input (min/rated/max)	kW C	0.18 - 0.48 - 0.80	0.18 - 0.77 - 0.98
Pdesignc	kW	2.5	3.5
EER	W/W	5.0 - 5.21 - 4.37	5.0 - 4.50 - 4.18
SEER		9	8.9
Energy efficiency class	C	A+++	A+++
Heating capacity	kW	3.2	4.0
Heating range (min. - max.)	kW	0.70 - 6.70	0.70 - 7.70
Power input (min/rated/max)	kW H	0.17 - 0.60 - 1.90	0.17 - 0.80 - 2.40
Pdesignh	kW	3.0	3.8
COP	W/W	4.12 - 5.33 - 3.53	4.12 - 5.0 - 3.21
SCOP		5.3	5.1
Energy efficiency class	H	A+++	A+++

Highest SCOP of 5.30 among others!!

Heating performance improvement

Benchmark of Maximum Heating capacity



- Better heating performance than others
- Premium is the only one, guarantee -30° C operation.



Brand / model	CAPACITY 2.5 K W					CAPACITY 3.5 KW				
	Arctic	Premium	Pana (HZ*RKE)	Old Melco (FH)	New Melco (LN)	Arctic	Premium	Pana (HZ*RKE)	Old Melco (FH)	New Melco (LN)
Max Heat (+7° C)	6.50	6.70	6.65	6.30	-	7.10	7.70	7.75	6.60	-
Max Heat (-7° C)	4.20	4.40	4.10	4.00	(-10° C) 3.2	5.40	5.50	4.70	5.30	(-10° C) 4.0
COP (-7° C)	2.41	2.80	2.61	2.50	-	2.51	2.41	2.44	2.40	-
Max Heat (-15° C)	3.60	3.70	3.63	3.20	-	4.40	4.50	3.95	4.30	-
COP (-15° C)	2.37	2.20	2.31	2.30	-	2.40	2.21	2.14	2.20	-
Max Heat (-25° C)	2.50	2.70	2.20	-	2.30	2.80	2.90	2.60	-	3.10
COP (-25° C)	2.08	1.86	1.65	-	-	1.81	1.46	1.64	-	-
Operation range * (° C)	-25	-30	-20	-25	-25	-25	-30	-20	-25	-25

** Operation limit, declared on Eurovent website, in manual and by VTT test laboratories(FINLAND).*

Quietest outdoor unit

Capacity		2.5 kw				3.5 kw			
Brand		TOSHIBA		Panasonic	TOSHIBA		Panasonic		
Model		Premium	Arctic	LN25 VGHZ	HZ9RKE	DSK 9	DSK 8	LN35 VGHZ	HZ12RKE
Noise (Outdoor)(Cool)	(dB)	46	46	46	46	48	48	49	48
Noise (Outdoor)(Heat)	(dB)	47	47	49	47	49	49	50	50









Features benchmark

Thanks to market feedbacks, Premium contains outstanding features, specially made for Nordic H/P application.

 Outstanding features

(1) available at commissioning

(2) optional

		Arctic	Premium	PANASONIC HZ	MELCO LN
Control features	Weekly programming	O	O	X ⁽²⁾	O
	8° C function	O	O	X ⁽²⁾	O
	WiFi control	O	X ⁽²⁾	X ⁽²⁾	O
	Motion sensor	X	X	O	O
	<i>Silent operation (outdoor unit)</i>	X		X	X
	<i>On demand defrosting (manual)</i>	O		X	X
	Wired control possibility	X	X	X ⁽²⁾	X
Ease of use	Auto Diagnosis	O	O	O	O
	Auto Restart after power failure	X ⁽¹⁾	O	O	O
	<i>Nice indicators (heating/red, cooling/blue)</i>	O		X	X
Indoor Air Quality & comfort	Plasma air purifier	O	O	X	O
	3D Airflow with 6 preset patterns	O	O	O	O
	Louver position memory after auto restart	X	O	O	O
	<i>Constant fan speed (fire place mode)</i>	X		X	X
	Double louver (up/down simultaneously)	X	X	X	
	<i>Special coated fin (dustless coil)</i>	O		X	X



User-friendly, Elegant & Intelligent Remote Control

Elegant, well designed remote control with bigger screen for easier use

3D Airflow

Improved comforts by distributing powerful/stable air vol. in 6 unique airflow patterns

8° C heating

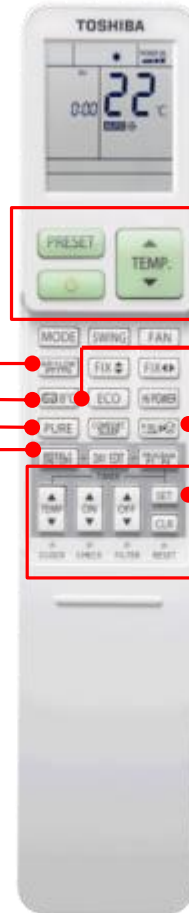
Indoor temp kept @ 8C, but temperature can be set between 5 and 13 Deg C

Plasma Air Purifier

Creates a fresh, healthy environment, absorbs and decomposes smoke, food smells and bad odors. This function can be switched on or off anytime by just pressing **PURE** button.

Weekly timer

Weekly timer allows to set "on and off" times or program settings every 24 hours. Temperature and ON/OFF operation can be programmed up to 4 different settings/day and 7 different programs in a week. Setting can be ON/OFF, Temperature set, Operation mode, and Fan speed



Improved Back lit Screen – Whiter, Bigger, Clear!

Simple 3 control buttons for ease of use

Fire place

Heating mode Fan motor don't stop.

Silent Operation (outdoor unit)

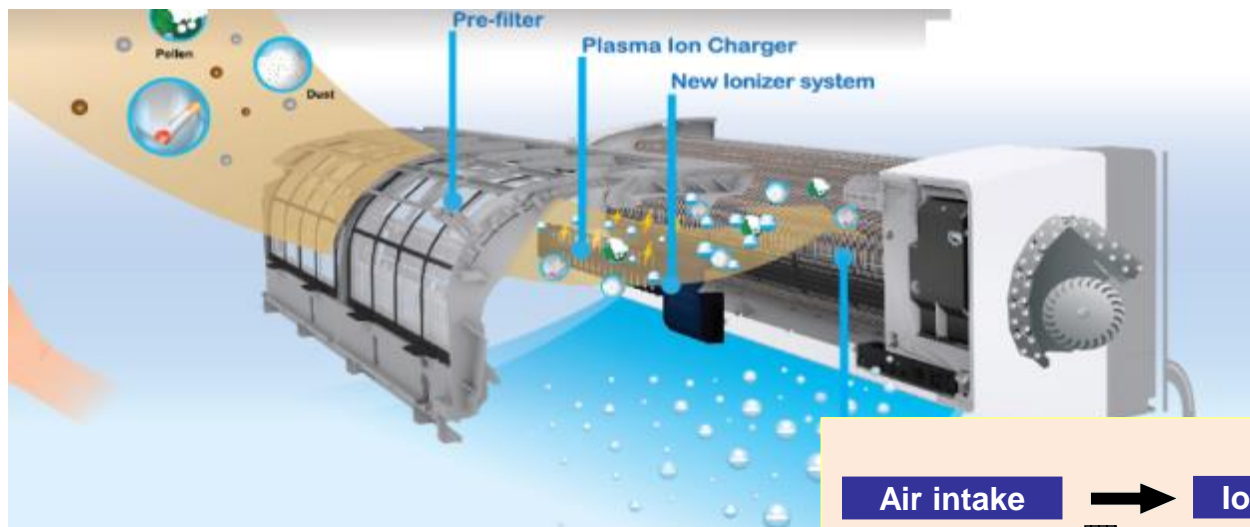
Reduce noise of outdoor unit

On-demand defrost

Other Carryover Features

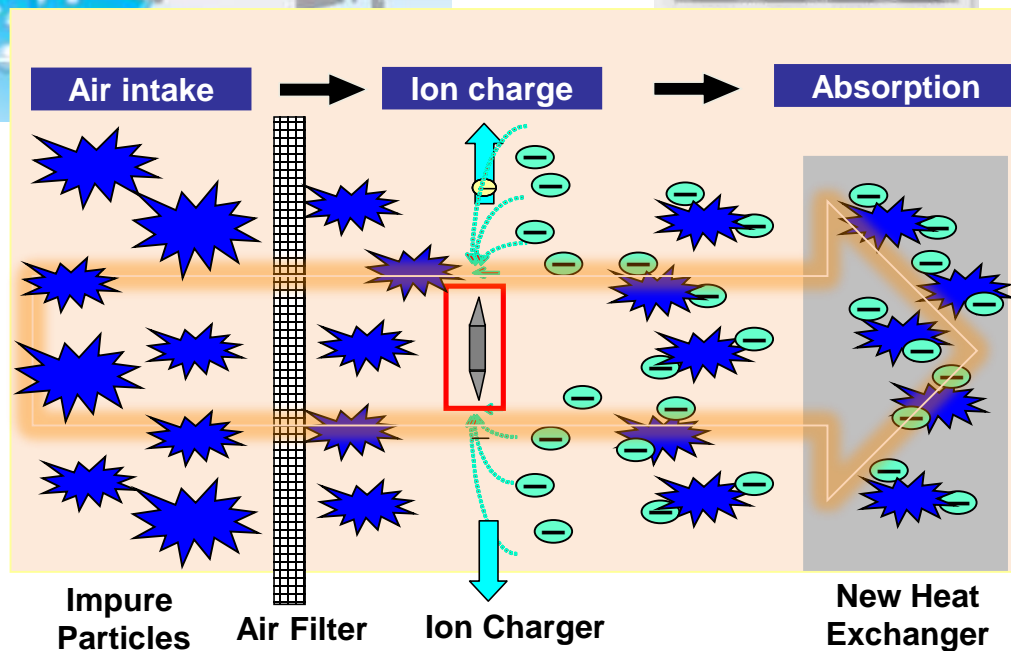
- Preset
- Power select
- Comfort sleep
- Hi-power
- Eco-logic

Plasma Air Purifier



Creates a fresh, healthy environment, absorbs and decomposes smoke, food smells and bad odors.

This function can be switched on or off anytime **by just pressing PURE button**



Dust, Smoke, Pollen and Impurities are **charged** with Ions → **Absorbed** at heat exchanger

Dustless - Magic Coil

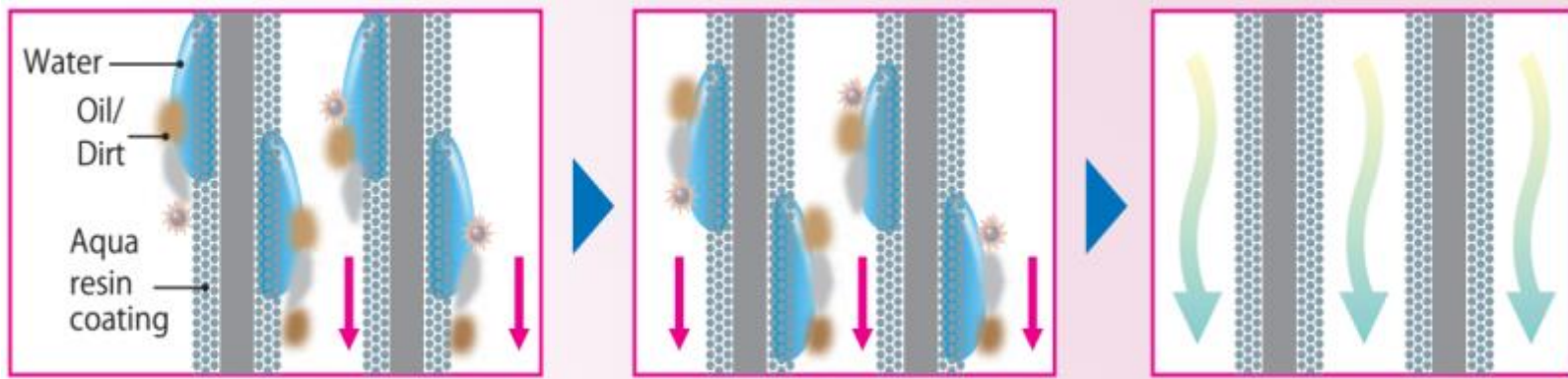
Special coated fin, then impurities find difficulty to stick on, and removed with drained water during defrosting period.



*oil & dirt cannot stick fin
because of special layer*

*condensed water
washes oil & dirt*

always clean as new !!!!



Consumer's benefit

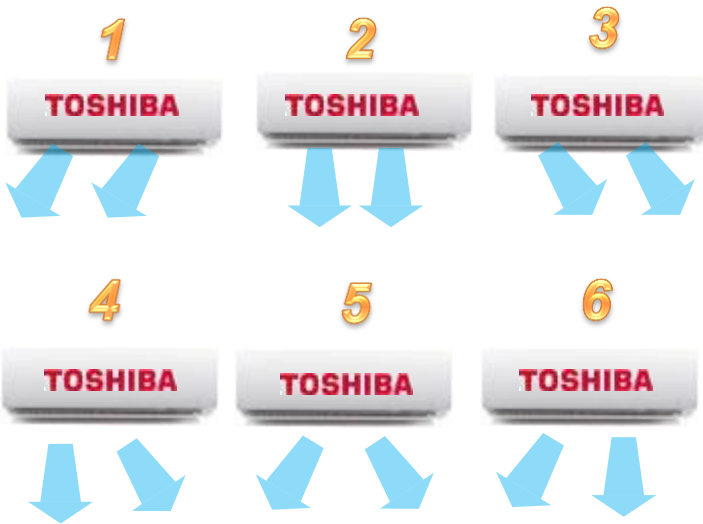
- 1) As the coil keeps clean (no-dust), energy efficiency is maintained as equal as a new unit (less-electrical bill)
- 2) Healthy & Fresh air / none bad-smell (mold & bad odor)

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Smart Airflow (6 patterns)

Independent-louvers

- 6 airflow patterns ensure high comfort
- Worry-less to find a good location to install Heatpump.



Fireplace mode

UNIQUE !!

TOSHIBA
Leading Innovation >>>

Keep indoor unit's fan blowing continuously during thermo off, to circulate heat from other sources over the room.

Fireplace 1:

- The indoor unit's fan will continue to run by the same speed, previously selected by end-user.

Fireplace 2:

- The indoor unit's fan will continue to run at super-low speed, programmed from factory.



Silent operation (outdoor unit) **UNIQUE !!**

Operate outdoor unit silently to ensure either yourself or neighborhood will have a tight sleep in nighttime.

This feature will be very helpful, whenever heatpump is installed in apartment



Silent 1:

Though operating silently, the Heating capacity is still prioritized to ensure having sufficient comfort inside the room. This setting is a perfect balance between the Heating and the Sound level of outdoor unit.

Silent 2:

Compromising the Heating capacity to the Sound level in any circumstance, where the outdoor unit's sound level is highly prioritized. This setting can reduce the maximum sound level of outdoor unit by 4 dB(A).



8° C heating mode



Note: 8° C setting can be adjusted to any temperature between 5° C and 13° C

When you are out of summer cabin, but you want to keep room temperature over the freezing point to protect everything from cold damage. This way it is nice and warm when you arrive!



On-demand defrosting *UNIQUE !!*



Before

After

Outdoor unit can be normally defrosted automatically!

However, in tough conditions, one can **manually** perform defrosting by pressing **SET** button on remote controller!

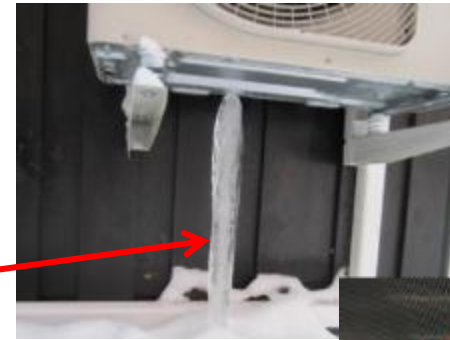


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Anti-icing CDU

(The most important of Nordic H/P is reliability)

- One-step improvement to become a **perfect** H/P. (Arctic satisfied, but still not perfect.)
- Readjusted heating cable at base-pan of CDU to completely kill this ice, if necessary**.
- Ensure to cope with -30°C outside temp.



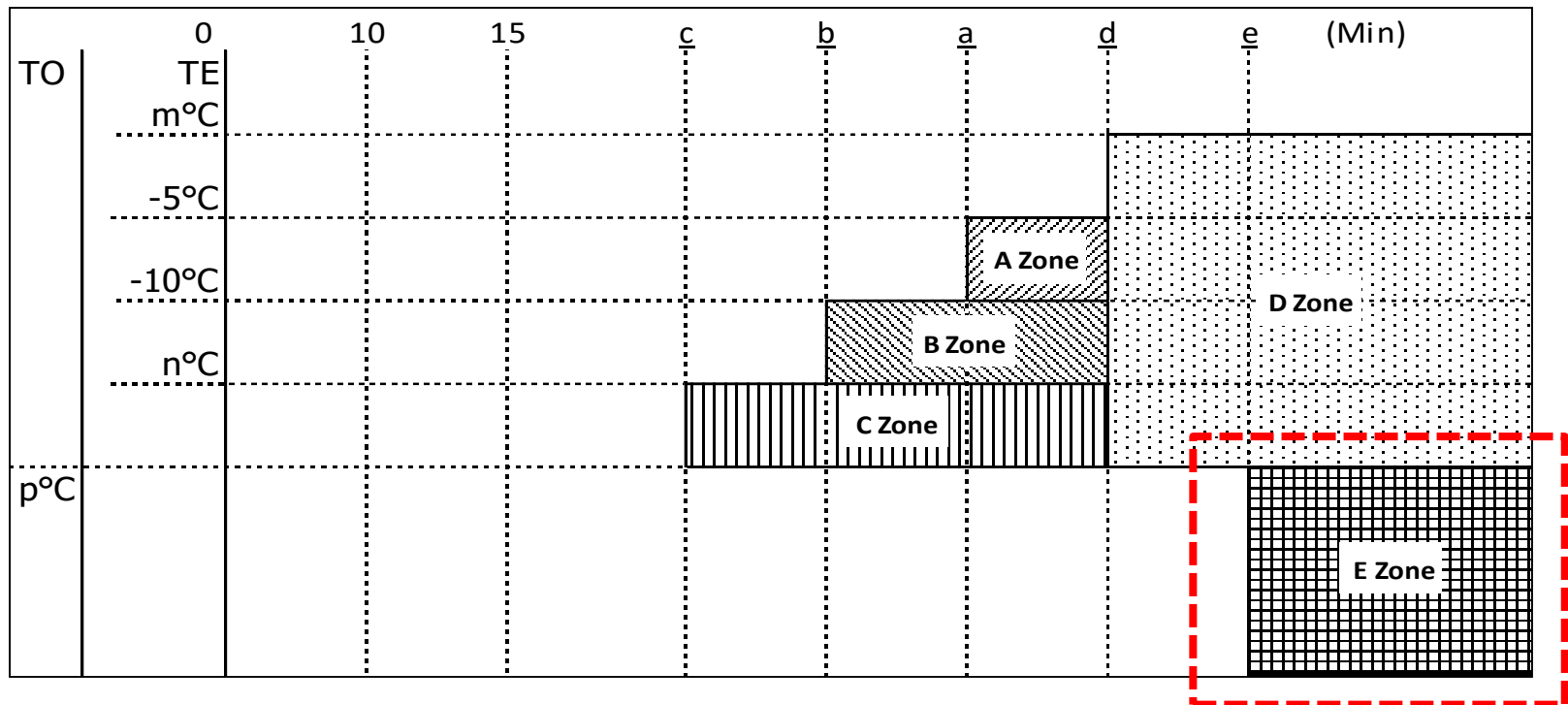
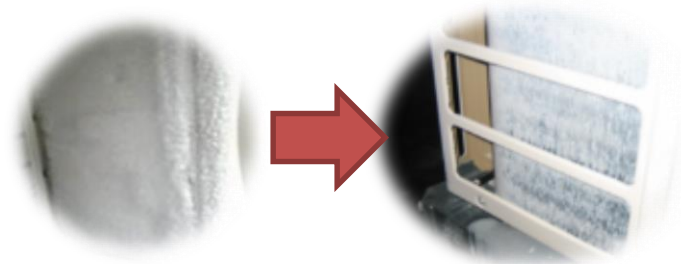
Manual Defrost + **Adjusted heating cable** = **Perfect Heatpump**

Caution: Consult Heatpump specialist before rearrange heating cable out of cabinet, as it may cause a human-fatal.

Sophisticated Defrosting Algorithm

Add E-Zone in Automatic Defrost function.

Reduce time of Defrost when ambient temp. lower than -10°C , giving more time to heat, and deliver better comfort experience.



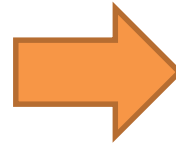
Double O-rings in packed valve

Improved Safety and Reliability via double O-rings in packed valve (Liq/Gas) to protect the risk of refrigerant leakage from Low-ambient temperature condition.

ARCTIC



PREMIUM

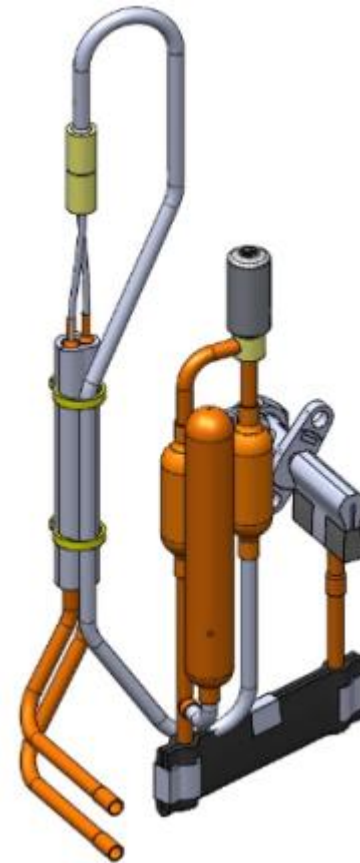


Dryer in outdoor unit

A step-up of product reliability which is a heart of TOSHIBA philosophy.

Dryer in outdoor unit to make sure only liquid refrigerant reaches expansion valve.

It also contains a dryer, a moisture absorbing element, to help "dry out" the refrigerant.



High pressure switch in outdoor unit

- Not only safety protection by software control, the new Premium also comes with a High-pressure switch as a 2nd protection element.
- Thanks to this physical safety device, Compressor and other parts are protected any damage from abnormal high pressure.



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Better Air Solutions