

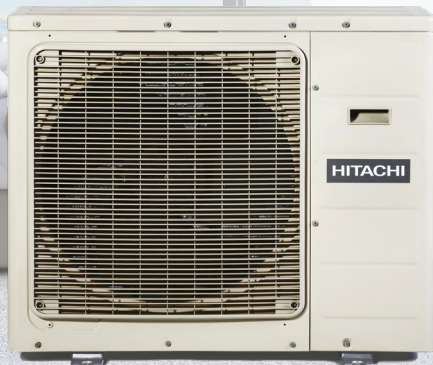
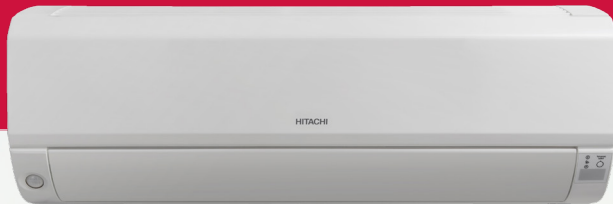
HITACHI

Triple C R32

Cooling, Heating & Domestic Hot Water Solution for Residential & Light Commercial Buildings



The first Multi on the market providing Triple comfort: cooling, heating & DHW



Cooling & Heating



Cooling, heating & domestic hot water solution



Triple C R32 Triple comfort solution

3 in 1:
exclusive
on the
market

What is new **Triple C R32**?

Triple C R32 is the first Multisplit system on the market providing Triple comfort: **cooling, heating and domestic hot water (DHW)** with the use of only one single outdoor unit.

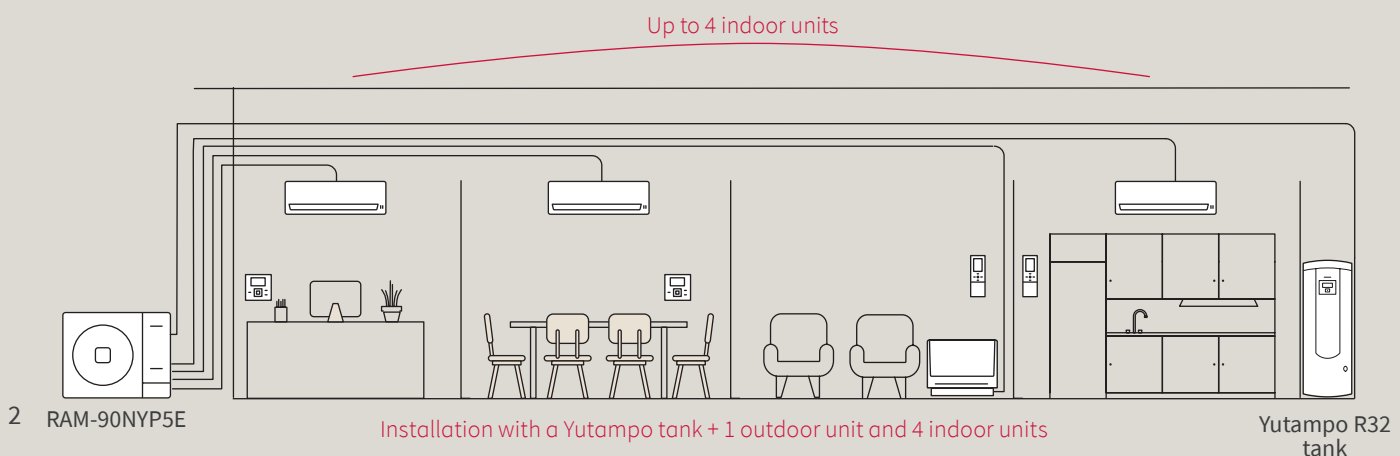
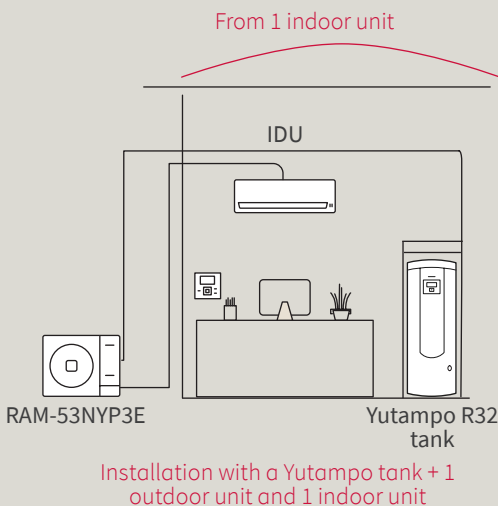
The system combines air-conditioning for cooling & heating and a split water heater tank **Yutampo R32** (from 1 to 4 IDU/ 1 ODU/ 1 Tank floor standing) for the production of DHW.

What are key **benefits**?

- **Energy savings**
 - High seasonal performances: **SEER A++ / SCOP A++/A+**
 - High domestic hot water (DHW) performances: **A+ / A**
 - Increased energy savings with **Hibernate mode**: **70%** reduction of the stand by power consumption
- **High comfort level**
 - High heating capacity at low temperatures
 - Low sound level thanks to **Vector Control** technology applied on the compressor
 - Smart priority control for optimal cooling & heating or DHW mode
- **Installation flexibility**
 - Ability to connect from 1 up to 4 indoor units to a single outdoor unit
 - Long piping length up to **25m** for easier installation
- **Connectivity**
 - Compatible with **HiKumo App** (remote control) & **HiKumo PRO** (remote maintenance)
- **Compatible with a variety of indoor units of different design**
 - Wall Hi-End, Wall Standard, Wall Light Commercial, Cassette, Duct, Floor

Where to **install**?

- **Refurbishment housing:**
 - **Triple C R32** can easily replace an electric heating system and a boiler with minimum installation work, providing a possibility to switch to the cooling mode in the summertime
 - Maximum heating capacity can reach up to **11,5kW**
- **New house buildings:**
 - Suitable for new buildings with high demand for energy efficiency and low capacities solutions with reduced installation space, **Triple C R32** can operate both in cooling & heating mode depending on weather conditions all year long



Triple C R32 Priority control

How does the **priority control** work?

Triple C R32 can operate both for cooling & heating and DHW production, and it is possible to choose a “**priority control**” depending on the needs of the application/installation. Thanks to the smart **priority control**, the user can choose whether to give the highest priority to **DHW production** or **cooling & heating** modes or to opt for a **balanced pattern** of both modes.

« **Fine tuning** » ensures a high level of comfort for both heating/cooling and Domestic Hot Water.



RAK-Q/RXE

RAF-RXE



A perfect choice for residential housing with a high demand of hot water.



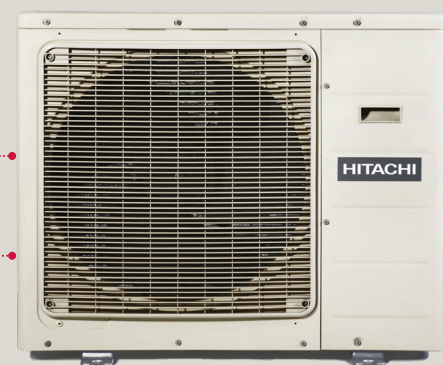
A balanced system for replacing electric heating systems with more efficient air-to-air split units and air-to-water tank.



An ideal solution for small offices replacing old electric systems, given priority to air conditioning.



TAW-190RHC



RAM-90NYP5E

Cooling, heating & domestic hot water solution

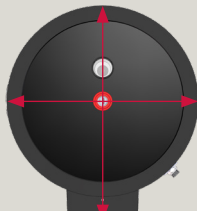


520



597

600



681



HiKumo App for easy
remote control



HiKumo PRO for easy
remote maintenance



Triple C R32 Installation & key features

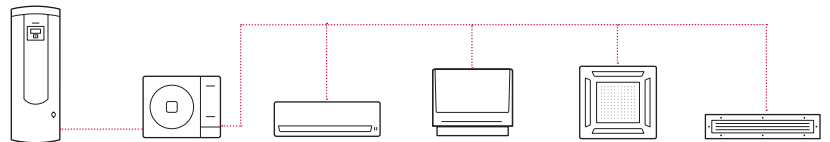
Easy & flexible installation

Triple C R32 solution is easy and flexible to install thanks to its refrigerant piping capability, typical of a multi split system:

- Individual piping length between ODU and air-to-air IDUs can span from **3m min to 25m max**
- Height difference between an outdoor unit (ODU) and an indoor unit (IDU) can reach **up to 20m**
- Height difference between IDUs can be within **5m**
- Piping length between ODU and tank can span from **5m min up to 20m max**
- Height difference between ODU and tank can reach **up to 10m**

Total maximum piping length is:

- **60m** for RAM-53NYP3E and RAM-70NYP4E, **75m** for RAM-90NYP5E



1. Tank

2. ODU

3. Wall

4. Floor

5. Cassette

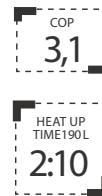
6. Ducted

① Yutampo Tank

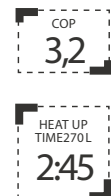
- **Compact** dimensions allow the tank to be installed in a standard cupboard
- Embedded **LCD Controller** allows to set easily water temperature and functions in multiple languages
- **Embedded electric heater** for additional heating capacity and anti-legionella protection
- **Active anode** (option) guarantees a reinforced tank protection
- Hidden refrigerant connections in the front panel to **improve aesthetics**



TAW-190RHC

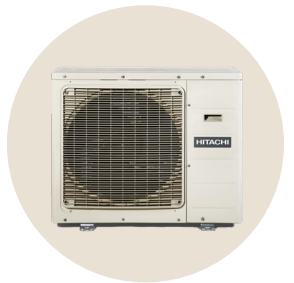


TAW-270RHC



② Outdoor unit

- **High energy efficiency** both in cooling & heating (**A++/A++**) and DHW production (**A+**)
- **Low sound power level** (minimum **61 dBA**) thanks to Vector control
- Long total piping length (maximum 75m) and individual piping length (maximum 25m)
- **Energy savings** thanks to Hibernate mode: low power consumption in stand-by mode
- Connection from **1 up to 4 indoor units** and 1 tank
- **Compact** size & light weight





Triple C R32 system installed in a house

Indoor Units



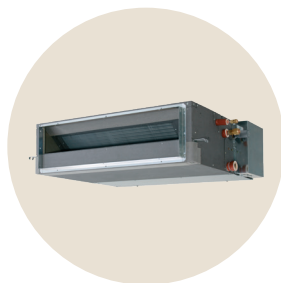
③ Wall-mounted

- **Low noise operation**, sound pressure is only **19dBA**
- **Embedded Human sensor** provides additional energy savings when a room is empty
- **Indoor air quality** is guaranteed thanks to active carbon filters and mold clean function
- Homogeneous airflow distribution thanks to a **4-way swing function**
- IDU can be controlled remotely through **HiKumo smartphone app** by optional wireless gateway



④ Floor-standing

- Can be **suspended on a wall** for easier floor cleaning
- Effective airflow distribution in larger rooms thanks to **Extended Airflow function**
- Enhanced comfort provided thanks to **auto louver function** for optimum airflow distribution during cooling/heating operations
- **Optional gas leak sensor (SPX-RAFGLS)** to be installed in compliance with **EN-378** safety requirements
- Wireless gateway and **HiKumo** compatibility



⑤ Ducted

- **Hidden and discreet** indoor unit, ideal for various types of residential environment
- Middle static pressure (maximum **150Pa**) allows long duct to serve multiple rooms with one indoor unit only
- **Built-in drain pump** is included
- Air inlet can be installed on the rear or bottom of duct units to match different installations
- Compatibility with **AIRZONE controller** and Wireless gateway (**HiKumo app**)









* Cassette




- **600mm x 600mm** compact 4-way cassette, ideal for light commercial applications
- Individual louver control through wired remote control **SPX-WKT3**
- **Built-in human sensor** (ECO mode) available on the panel **P-AP56NAMS**
- Built-in drain pump is included
- Wireless gateway and **HiKumo** compatibility

*not displayed in the picture above

Triple C R32 Line-up

OUTDOOR UNIT			
	RAM-53NYP3E	RAM-70NYP4E	RAM-90NYP5E
	2 (Min.1)	3 (Min.2)	4 (Min. 2)
	5.3	6.8	8.5

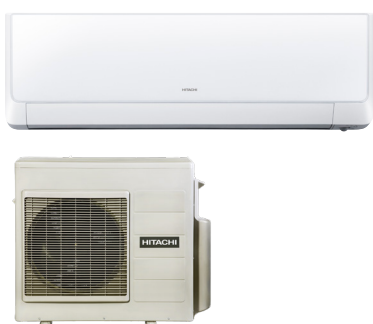
INDOOR UNIT			
	Wall Hi-End RAK-Q/RXE	Wall Standard RAK-Q/RPE	Wall Light Commercial RAK-RPE (1)
	1.8~5.0	1.5~5.0	5.0~6.0
	Cooling cap. (kW)	Cooling cap. (kW)	Cooling cap. (kW)

INDOOR UNIT			
	Floor RAF-RXE	Duct RAD-Q/RPE	Cassette RAI-RPE
	2.5~5.0	1.8~6.0	2.5~6.0
	Cooling cap. (kW)	Cooling cap. (kW)	Cooling cap. (kW)

INDOOR UNIT (TANK)		
	TAW-190RHC	TAW-270RHC
	190	270
	Capacity (L)	Capacity (L)

Triple C R32 Controls & accessories

Air-to-air controls



SPX-WKT3

- Weekly timer
- Info display: room temperature, power consumption, alarm code
- Temperature sensor embedded
- Temperature range limit

Wired controllers



SPX-RCDA / RCDB

- Simplified wired controller

Wireless controller



**SPX-RCKA1
(SPX-RCKA1 / 2 / 3)**

- Weekly timer
- Info display: room temperature, power consumption, alarm code

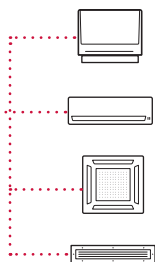
OR

H-LINK

CSNET **H-LINK**



H-link adapter
PSC-6RAD



HiKumo & HiKumo PRO



SPX-TAG01



AHP-SMB-01 Hi-Box

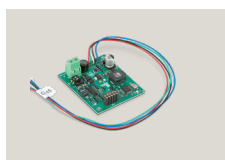


HiKumo App

Control your **Triple C R32** from your smartphone with **HiKumo App** and enjoy maintenance services with **HiKumo PRO** platform

Air-to-water controls

H-LINK



H-link adapter
ATW-HCD-01

H-LINK



HiKumo & HiKumo PRO



ATW-TAG-02 Gateway



AHP-SMB-01 Hi-Box



HiKumo App

Control your **Triple C R32** from your smartphone with **HiKumo App** and enjoy maintenance services with **HiKumo PRO** platform

*version 2.0 (Dec 2020)

Tank accessories



Optional function connector **ATW-OFC-02**

- Inputs & Outputs functions signal
- Opportunity to configure 3 inputs and 4 outputs (Smart action, DHW boost, Smart Grid, recirculation etc)



Active anode **ATW-CP-05**

- Reinforce protection of the tank with a cathodic protecton
- No maintenance required

Home automation/ BMS

Triple C R32 is compatible with **Modbus** and **KNX**



Triple C R32

Technical features

OUTDOOR UNIT (IN COMBINATION WITH AIR-TO-AIR INDOOR UNITS)	UNIT	RAM-53NYP3E	RAM-70NYP4E	RAM-90NYP5E
Minimum / Maximum indoor units connectable		1 / 2	2 / 3	2 / 4
Nominal Cooling capacity (min - max)*	kW	5.30 (1.50 - 6.60)	7.00 (1.50 - 8.80)	8.50 (1.50 - 9.50)
Nominal Heating capacity (min - max)*	kW	6.80 (1.50 - 7.20)	8.50 (1.50 - 9.50)	10.00 (1.50 - 11.50)
Nominal cooling power input (min - max)	kW	1.29 (0.46 - 2.96)	2.055 (0.46 - 3.20)	2.565 (0.50 - 3.85)
Nominal heating power input (min - max)	kW	1.61 (0.43 - 2.60)	2.02 (0.48 - 3.12)	2.56 (0.50 - 3.85)
EER / COP		4.10 / 4.20	3.41 / 4.20	3.31 / 3.90
SEER / SCOP *average climate	%	7.60 / 4.60	7.40 / 4.60	7.30 / 4.30
Energy class (SEER/SCOP)		A++ / A++	A++ / A++	A++ / A+
Noise level cooling (sound pressure)	dB(A)	50	50	52
Noise level heating (sound pressure)	dB(A)	51	53	56
Noise level - In/Out (sound power)	dB(A)	56 / 61	60 / 63	60 / 66
Dimensions (H x W x D)	mm	800 x 850 x 298		800 x 950 x 370
Net weight	kg	59	60	76
Power supply	V/Ph/Hz	220-240V / 1ph / 50/60Hz		
Recommended fuse size (circuit breaker)	A	20	20	25
Cable section (power)	mm ²	2.50 x 2 + EARTH		
Interconnection between indoor unit and outdoor unit	mm ²	1.50 x 3 + EARTH		
Piping diameter (Liq / Gas)	Inch	(1/4" x 3 / 3/8" x 3)	(1/4" x 4 / 3/8" x 3 + 1/2" x 1)	1/4" x 5 / (3/8" x 3) + (1/2" x 2)
Minimum piping length (each indoor)	m	3		
Maximum piping length / height difference	m	50 / 20	60 / 20	75 / 20
Current quantity of refrigerant	kg / TeqCO ²	2.05 / 1.384	2.05 / 1.384	2.40 / 1.620
Chargeless length / Additional refrigerant charge	m / g/m	30 / 20	30 / 20	35 / 15
Outdoor air temperature working range (cooling/ heating)	°C	-10°—46° / -15°—24°		
Refrigerant (GWP)	-	R32 / 675		
Condenser Fan		Propeller Fan		
Compressor	Type	2 Cylinder Rotary		

OUTDOOR UNIT (IN COMBINATION WITH A TANK)	UNIT	RAM-53NYP3E		RAM-70NYP4E		RAM-90NYP5E	
		TAW-190RHC	TAW-270RHC	TAW-190RHC	TAW-270RHC	TAW-190RHC	TAW-270RHC
Nominal Voume of the tank	L	190	270	190	270	190	270
Declared load profile	-	L	XL	L	XL	L	XL
Setting Temperature for the performance measurement	°C	53					
Reference hot water temperature (wh)	°C	52.6	52.8	52.6	52.8	52.6	52.8
COPT	-	3.1	3.2	3.1	3.2	2.72	2.9
Maximal volume of usable hot water (Vmax)	L	256	360	256	360	256	360
Standby power input (Pes)	W	26		27		29	
Heat-up time (Th)	hh:mm	02:20	03:10	02:20	03:10	02:10	02:45
Energy input during Heat-up time (Weh)	kWh	3.46	4.4	3.46	4.4	3.89	5.13
Thermal charge of the electrical heater	W/cm ²	7.37					
Rated pressure of the water tank	Mpa	0.7					
Unit Dimensions (H x W x D)	mm	1714 x 520 x 597	1714 x 600 x 681	1714 x 520 x 597	1714 x 600 x 681	1714 x 520 x 597	1714 x 600 x 681
Unit Weight	kg	53	62	53	62	53	62
Tank Corrossion Protection		"Magnesium Anode / Active Anode as accessory"					
Tank material		DUPLEX Stainless Steel					
Electric Heater Power	Kw	1.64					
Recommended fuse (or CB) size for Electrical Heater	A	10					
Electric Heater Power supply	V	220-230V					
Electric Heater Cable section	mm ²	1.50 x 2 + EARTH					
Interconnection between indoor unit and outdoor unit	mm ²	0.75 x 3 + EARTH					
Piping diameter (Liq / Gas)	Inch	1/4" / 3/8"					
Minimum piping length	m	5					
Maximum piping length / height difference	m	20 / 10					
Working range Outdoor Air Temperature (DHW)	°C	-15 ~ 37					
Water setting temperature (with E-Heater)	°C	30~55 (75)					
Minimum Maximum Water tank temperature	°C	5~75					
Indoor tank place temperature	°C	5 ~30					
Remote control (standard/optional)	Standard Optional	PC-ARFT1E					

Triple C R32

Technical features

WALL HI-END (RAK-Q/RXE)	UNIT	RAK-18QXE	RAK-25RXE	RAK-35RXE	RAK-50RXE
Noise level cooling (sound pressure (SL / L / M / H))	dB (A)	20/27/35/43	20/27/35/43	22/29/37/45	25/31/39/47
Noise level heating (sound pressure (SL / L / M / H))	dB (A)	20/28/36/43	20/28/36/43	22/30/37/45	25/31/39/48
Noise level (sound power)	dB (A)	58	58	60	60
Dimensions (H x W x D)	mm	295 x 900 x 210			
Wireless remocon		Included			
Wired remocon		Not included			

WALL STANDARD (RAK-Q/RPE)	UNIT	RAK-15QPE	RAK-18RPE	RAK-25RPE	RAK-35RPE	RAK-42RPE	RAK-50RPE
Noise level cooling (sound pressure (SL / L / M / H))	dB (A)	20/24/30/34	21/24/33/37	22/24/33/40	25/26/36/43	25/28/39 /46	25/28/39/46
Noise level heating (sound pressure (SL / L / M / H))	dB (A)	20/24/32/35	19/22/33/38	20/23/34/41	26/27/36/44	27/31/39 / 46	27/31/39/46
Noise level (sound power)	dB (A)	51	51	54	57	60	60
Dimensions (H x W x D)	mm	280 x 780 x 230					
Wireless remocon		Included					
Wired remocon		Not included					

WALL LIGHT COMMERCIAL RAK-RPE (1)	UNIT	RAK-50RPE1	RAK-60RPE
Noise level cooling (sound pressure (SL / L / M / H))	dB (A)	26/33/39/47	30/33/42/48
Noise level heating (sound pressure (SL / L / M / H))	dB (A)	26/33/39/47	33/34/42/49
Noise level (sound power)	dB (A)	60	60
Dimensions (H x W x D)	mm	300 x 900 x 230	
Wireless remocon		Not included	
Wired remocon		Not included	

FLOOR HI-END (RAF-RXE)	UNIT	RAF-25RXE	RAF-35RXE	RAF-50RXE
Noise level cooling (sound pressure (SL / L / M / H))	dB (A)	20/26/31/38	20/26/31/39	22/29/36/43
Noise level heating (sound pressure (SL / L / M / H))	dB (A)	20/26/31/38	20/26/31/39	22/29/36/44
Noise level (sound power)	dB (A)	52	53	57
Dimensions (H x W x D)	mm	750 x 590 x 215		
Wireless remocon		Included		
Wired remocon		Not included		

DUCT (RAD-Q/RPE)	UNIT	RAD-18QPE	RAD-25RPE	RAD-35RPE	RAD-50RPE	RAD-60RPE	
Noise level cooling (sound pressure (SL / L / M / H))	dB (A)	29/31/34/36	30/33/37/41	30/33/37/41	29/32/35/39	29/32/35/39	
Noise level heating (sound pressure (SL / L / M / H))	dB (A)	27/30/33/37	30/34/38/42	30/34/38/42	29/32/35/40	29/32/35/40	
Noise level (sound power)	dB (A)	57				53	
Dimensions (H x W x D)	mm	235 x 750 x 400			270 x 900 x 720		
Wireless remocon		Not included					
Wired remocon		Not included					



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