## **Panasonic**



# Refrigeration Catalogue 2022/2023

 $\mathrm{CO}_2$  Condensing units for LT and MT applications, and R32 complete systems for HT applications.











# CO<sub>2</sub> condensing units - CR Series with natural refrigerant

Panasonic's CO<sub>2</sub> condensing units - CR Series provide the ideal solution for supermarkets, convenience stores and gas stations.

Keeping food always fresh at right temperature in showcases or cold rooms is a very critical point. And one of the biggest challenges for those retailers has been the expensive effects of refrigeration breakdowns which can result in costly product wastage.

### PACi NX Elite can cool rooms down to 8 °C

Panasonic PACi NX Elite offers a high quality and efficient solution for high temperature refrigeration applications for facilities such as wine cellars, food processing facilities and supermarkets.

Choose the sustainable green solution by Panasonic	<b>→</b> 4
Natural solution with high energy saving	<b>→</b> 6
A sustainable refrigeration systems in your food retail	→ 8
The safe refrigeration systems for your healthcare business	<b>→</b> 9
CO <sub>2</sub> transcritical condensing units - CR Series	<b>→</b> 10
Technology by Panasonic	<b>→</b> 12
Range of CO <sub>2</sub> condensing units - CR Series	<b>→</b> 14
CO <sub>2</sub> Condensing units - CR Series	<b>→</b> 15

Panasonic PACi NX Elite can cool rooms down to 8 °C	<del>→</del> 16
Bringing nature's balance indoors	<b>→</b> 18
PACi NX Series Elite wall-mounted Inverter+ · R32	<b>→</b> 20
PACi NX Series Elite 4 way 90x90 cassette Inverter+ · R32	<b>→</b> 21
PACi NX Series Elite ceiling Inverter+ · R32	<b>→</b> 22
PACi NX Series Elite adaptive ducted unit Inverter+ · R32	<b>→</b> 23











# Choose the sustainable green solution by Panasonic

E 2 REFRIGERATION



Environmentally friendly  ${\rm CO_2}$  condensing units - CR Series and medium temperature solutions with PACi NX R32.



	CO <sub>2</sub> co	Medium temperature solutions with PACi NX			
MT/LT Type	MT Type	MT/LT Type	MT Type	MT/LT Type	
	- 0	- 0		-	
		Capacity range (kW)			Capacity range (kW)
4 (MT) / 2 (LT)	7,5	8 (MT) / 4 (LT)	15	16 (MT) / 8 (LT)	2,1 to 23,2
		Low temperature			Low temperature
V	_	~	_	~	_
		Medium temperature			Medium temperature
_	<b>✓</b>	~	_	~	V
		High Temperature			High Temperature
_	_	_	_	_	V
		Heat recovery port			Heat recovery port
_	~	~	_	~	_
	ET (Evaporat	Room temp. set point			
-45 ~ -5 °C	-20 ~ -5 °C	-45 ~ -5 °C	-20 ~ -5 °C	-45 ~ -5 °C	+8 ~ +24 °C WB
	R	Room size example (m²)*			
40 (MT) / 10 (LT)	80	80 (MT) / 20 (LT)	200	200 (MT) / 50 (LT)	From 6

st Room size is reference. Please contact to authorized Panasonic dealer for calculation.

#### **Energy saving**



#### Natural CO<sub>2</sub> / R744.

R744 refrigerant provides higher energy saving and lower CO<sub>2</sub> emission compared to R404A. Zero ODP and GWP=1 means natural substance.



#### R32 refrigerant.

Our heat pumps containing the refrigerant R32 show a drastic reduction in the value of Global Warming Potential (GWP). An important step to reduce greenhouse gases. R32 is also a component refrigerant, making it easy to recycle.



#### Inverter+.

Inverter Plus System classification highlights Panasonic's highest performing systems.



#### High efficiency compressor.

Powerful 2-stage CO<sub>2</sub> rotary compressor by Panasonic. It delivers high performance all year around.

#### **High connectivity**



#### BMS connectivity.

The system can by supervised with major monitoring system.

#### High performance and comfortability



#### Super quiet.

Systems operate extremely quiet. Minimum 33 dB(A) 010 m with 4 HP model.



#### Operating range up to 43 °C.

The system operates up to 43 °C, allowing for installation in various locations.



#### Anti corrosion coating.

Selectable fin type with or without an anti corrosion coating. The anti corrosion coating prevents salt damage for a longer lifesoan.



#### Heat recovery port.

The heat recovery port is available to cut running costs as optional. By utilizing exhausted heat generated by refrigeration to the energy source for heating.



#### Automatic fan.

Microprocessor control automatically adjusts the outdoor fan speed in CO<sub>2</sub> systems for efficient operation.



#### 5 Years compressor warranty.

We guarantee the outdoor unit compressors in the entire range for five years.

#### Why CO, ?: Natural refrigerant

EU F-Gas regulation is a key priority for European countries. It ensures compliance with the Kigali Amendment supporting international climate commitments on greenhouse gases and leading the global transition to climate-friendly HFC-free technologies. Carbon dioxide (R744) is regaining its place in the refrigeration world. Driven by environmental concerns, legislation now requires increased adoption of 'alternative' refrigerants, such as  ${\rm CO}_2$ .

CO<sub>2</sub> is an environmentally-friendly solution, with zero 0DP and "GWP" (Global Warming Potential)=1 means natural substance in the atmosphere.

In Europe a step-by-step HFC reduction has been in place since the F-Gas regulation was introduced in 2015. Countries all over the world have actively been preparing to enact the necessary domestic legislation to implement

Panasonic is now able to provide a solution in Europe with  $CO_2$  refrigeration systems to prevent global warming and to support environment-friendly retail operations. The following table shows how well R744 ( $CO_2$ ) performs

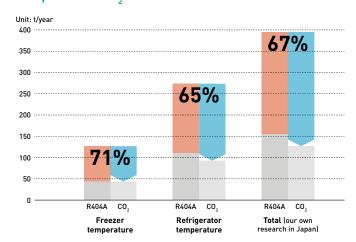
regarding environmental impact and safety.

the agreement to reduce the use of HFCs.

#### ODP (Ozone Depletion Potential) = 0 - GWP (Global Warming Potential) = 1.

		Next generation refrigerant	Current refrigerant			
	CO <sub>2</sub>	Ammonia	Isobutane	R410A	R404A	
ODP	0	0	0	0	0	
GWP	1	0	4	2090	3920	
Flammability	Non flammable	Light flammable	Flammable	Non flammable	Non flammable	
Toxicity	No	Yes	No	No	No	

#### Comparison of CO, emissions



#### ENERGY SAVING 25,4 % Freezer 16,2 % Refrigeration

Direct influence 1)

Retrigeration

Indirect influence 2)

Direct influence presents the effect of refrigerant leakage comparing R744 (CO<sub>2</sub>) with R404A.
 Indirect influence presents CO<sub>2</sub> emissions linked to power consumption of CO<sub>2</sub> unit and conventional units.

CO, EMISSION

67 % Reduction

By Panasonic research in Japan. Comparing 6 shops average for R404A inverter multi condensing

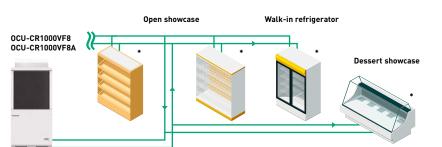
# Natural solution with high energy saving

Panasonic's range of  ${\rm CO}_2$  condensing units with natural refrigerant, and R32 complete systems for HT applications offer a reliable solution for a wide range of applications, including convenience stores, supermarket, gas stations and cold rooms.



#### **Showcases**

Convenience stores, supermarkets, service stations.



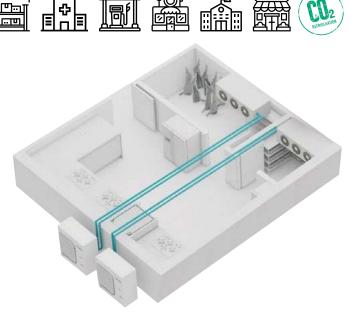


#### Cold room application to keep food fresh

Multiple installation capabilities. Unparalleled flexibility:

- Food retail applications (c-store, supermarkets, gasstations)
- $\cdot$  Food service applications (restaurants, canteens, schools)
- · Non-food applications (warehousing, industrial storage, healthcare)





#### Cold room application integrated with PACi NX Series

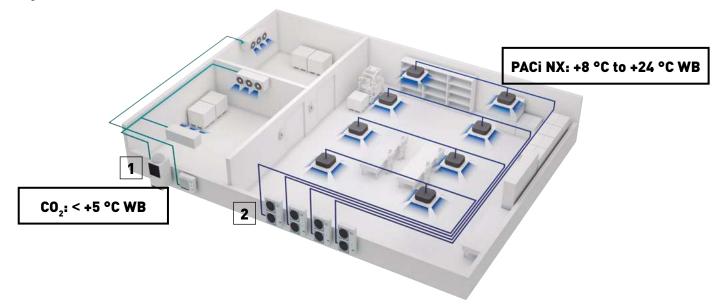
Panasonic offers various solutions for cold rooms by combining a wide range of products. Integrated with PACi NX Series, it allows for flexible design and installation.







PACi NX Series for cooling rooms between 8 °C WB and 24 °C.



st Controllers: PAW-CO2-PANEL-C or local supply.

# A sustainable refrigeration systems in your food retail

 ${
m CO}_2$  refrigerant is the choice to curb carbon footprint of any business organization, especially to food retailers, to whom it brings key advantages. Panasonic professional strongly supports your projects to meet customer's request!



10 HP MT TYPE (OCU-CR1000VF8).



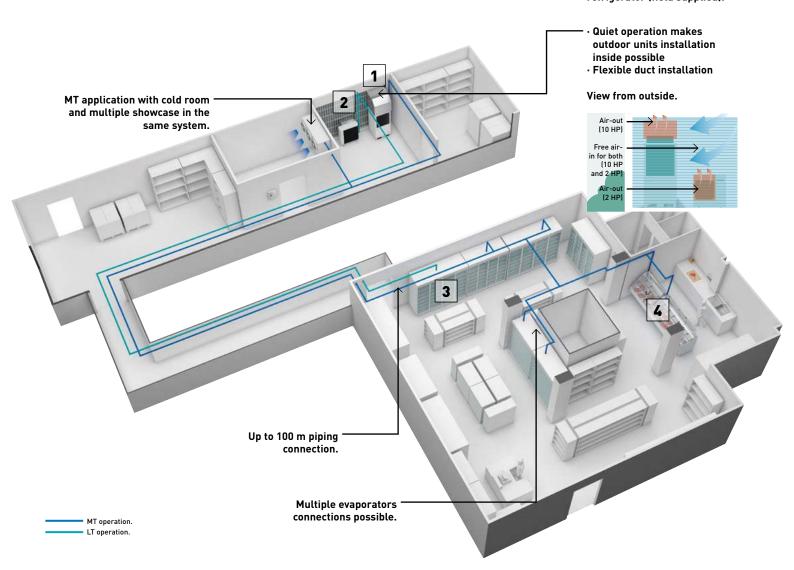
2 HP MT/LT TYPE (OCU-CR200VF5A).



Reach-in freezer (field supplied).



Serve-over counters, showcase and walk-in refrigerator (field supplied).





#### Nolan's Supermarket.

A particular focus of the project was to create a state-of-the-art refrigeration system operating on the 'Zero Ozone Depletion' plus ultra-low GWP of 1 natural refrigerant  ${\rm CO_2}$  and as part of the scheme.

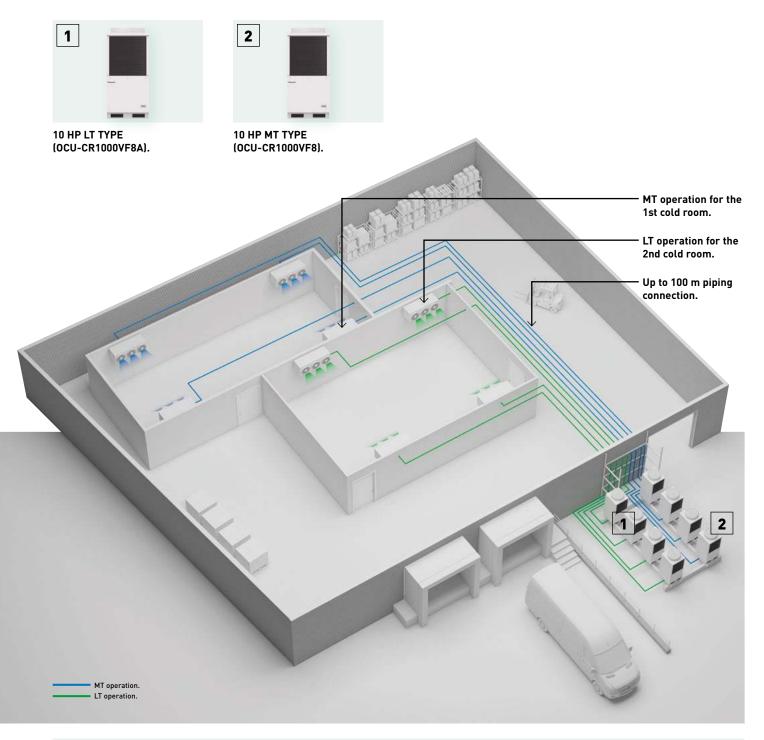
Panasonic units also has several unique thermo-physical properties.

The high performance, reliable and ultimately very efficient.

# The safe refrigeration systems for your healthcare business

 ${\rm CO_2}$  is the right refrigerant to curb carbon footprint of any business organization. In addition, there are advantages specially for healthcare business.

The project example shows one of the warehouse in the healthcare laboratory which requires several cold rooms there to keep bio-products safely.





#### STEMCELL Technologies.

STEMCELL Technologies is a global biotechnology company that develops, manufactures and sells products and provides services that support academic and industrial scientists.

Panasonic  ${\rm CO_2}$  condensing units - CR Series have been chosen to fulfill the expectation of environmental-friendly and safety requirements.

The products with reliable quality and high performance was also an essential point.

# CO<sub>2</sub> transcritical condensing units - CR Series

4 HP MT/LT Type, a new line-up in CR Series, offers a wide range of refrigeration systems, meeting the specific needs of small retail stores.



#### Superior efficiency with reliable quality

- · Panasonic has combined the 2-stage compressor with the split cycle for increased efficiency
- · High seasonal performance. SEPR: Maximum 3,83 in cooling, 1,92 in freezing 1)
- · High COP at high ambient temperature

1) 200VF5A.

Flexible installation

- Set-points at medium or low temperature available depending on applications
- · Compact unit
- · Silent operation
- · Long piping length: Maximum 100 m 2)
- · High external static pressure 2]
- · Transfer pressure control for stable electric expansion valve control in showcases 2)

2) 1000VE8/8A

#### Heat recovery port as renewable energy

- Maximum 16,7 kW of heating for free
- · Optional possibility to get subsidy (depending on location)
- · Easy connection process

#### Superior cooling capacity at each evaporating temperature

CO, transcritical condensing units - CR Series have a high cooling capacity at each set point. The CO, 2-stage compressor developed by Panasonic is designed to compress CO, refrigerant twice; it reduces the load in operation by half (compared to 1-stage refrigerant compression) and delivers increased durability and reliability.

Units can be programmed to run at low and medium temperatures at initial set-up. These settings can then be modified by turning a simple and user friendly rotary switch to further enhance energy savings.

MT/LT TYPE 200VF5A - 4 kW / 2 kW

**COOLING\*** 

FREEZING\*

SEPR values has been tested at 3-part laboratory.



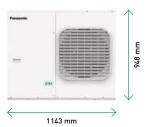
#### OCU-CR200VF5A(SL) 1). Cooling capacity (kW)

-50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0

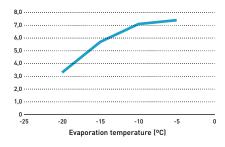
Evaporation temperature (°C)

MT TYPE 400VF8 - 7,5 kW

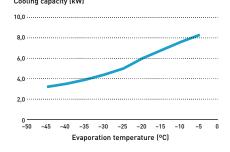
**NEW MT/LT TYPE** 400VF8A - 8 kW / 4 kW



#### OCU-CR400VF8(SL) 2). Cooling capacity (kW)

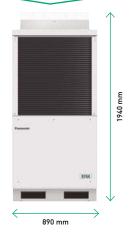


#### OCU-CR400VF8A(SL) 2).

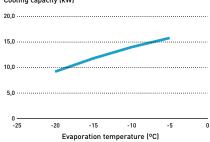


#### MT TYPE 1000VF8 - 15 kW

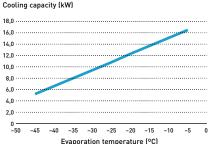
MT/LT TYPE 1000VF8A - 16 kW / 8 kW



#### OCU-CR1000VF8(SL) 2). Cooling capacity (kW)



#### OCU-CR1000VF8A(SL) 2).



<sup>1)</sup> Ambient temperature: 32 °C, 230 V, refrigerant: R744, suction gas

temperature: 18 °C. 2) Ambient temperature: 32 °C, 400 V, refrigerant: R744, suction gas

## **Technology by Panasonic**

Excellent quality control established by skilled factory team. Reliability is our main target and therefore we offer compressor warranties of 5 years, and 2 year warranties on other components!



#### Reliable CO, technology by Panasonic

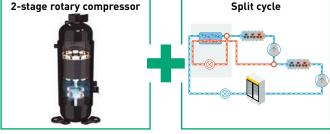
- · Reliable quality: Made in Japan
- · 10000 units sold and installed in 3700 retail operations such as convenience stores and supermarkets in Japan\*
- · Excellent quality control established by skilled factory team
- · Panasonic offers 5 year warranties on compressors and 2 years on components
- · The 5 year compressor warranty matches the products long lifespan
- \* As of the end of November 18.

#### Panasonic's combined technology of the 2-stage compressor with the split cycle

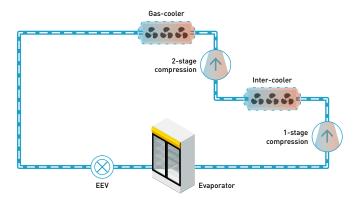
- · Panasonic 2-stage rotary compressor delivering powerful performance for more than 20
- · Split cycle\* enhances cooling effect
- \* Available for 200VF5A, 400VF8A and 1000VF8A models.

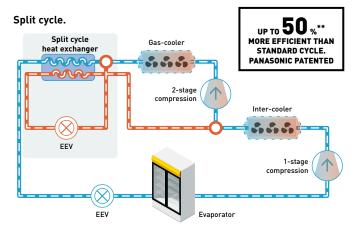
  \*\* In the case that the standard cycle with 1-stage rotary compressor was compared.





#### Standard cycle.



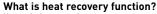


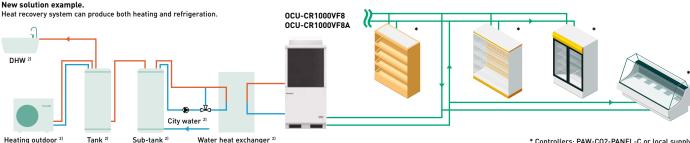
#### Heat recovery function for heating

This function offers refrigeration combined with heating all in one system. The ground-breaking solution allows for increased opportunity to cut running costs by utilizing exhausted heat from refrigeration and transferring to the energy source for heating.

1) Under the condition: ambient temperature 32 °C, evaporation temperature -10 °C. 100 % Partial load.2) Local supply.

16,7 kw<sup>11</sup> OF HOT WATER FOR **FREE** 





#### Design support tool available in Panasonic PRO Club.

Panasonic has launched a new online calculator to support engineers, installers, and technicians to quickly make calculations when specifying solutions for commercial refrigeration systems. The calculator can be found on Panasonic's PRO Club.

- · Evaporation temperature selection
- · Cooling capacity calculator
- Refrigerant pipe calculation
- · Electric expansion valves calculation
- · Refrigerant amount calculation

#### Ready to works on all devices, computers, tablets and smartphones!!



### PRO Club

#### www.panasonicproclub.com

or connect simply with your smartphone to the PRO Club using this QR



#### New control panel and electric expansion valves.

An intelligent controller has been redesigned with a compact chassis. This controller has the smart program especially for showcases and cold rooms.

Electric expansion valves (EEVs) are ready with 7 different sizes to meet precisely the field demand.



#### Intelligent controller with compact chassis.

- · MPXPRO control fully pre-programmed for MT and LT on the same panel
- · Compact structure size: 300 x 220 x 120 mm
- · Necessary cables, EEV stator, temperature and pressure probes as standard equipment
- Ultracap technology as standard equipment for emergency EEV's closing in the event of mains power failure
- Smart defrost functions, advanced superheat control, light and showcase curtain management,
- Own display user terminal plus keypad for programming , built-in switching power supply, Modbus, etc
- Management of HACCP alarms

Model reference

PAW-C02-PANEL-C



#### Electric expansion valves (EEVs) line-up.

- EEV's E2V-CW with 3/8" ODF copper fittings for high pressure applications (CO<sub>2</sub>)
- Operation refrigerant temperature: -40 T 70 °C
- Maximum operating pressure for all the models 03, 05, 09, 11, 14, 18, 24 (MOP) 140 barg
- Maximum operating pressure difference for 03, 05, 09, 11, 14, 18, (MOPD) 120 bar and 24 (MOPD) 85 bar
- Bipolar stator hermetic IP69K as standard equipment (supplied on panel)
- Mechanical strainer as standard equipment (500 mm mesh)
- Equipercentile control particularly effective at partial load with reliable operation even after 1,2 billion steps

Model reference		
PAW-E2V03CWAC0	PAW-E2V11CWAC0	F

PAW-E2V24CWAC0 PAW-E2V05CWAC0 PAW-E2V14CWAC0 PAW-E2V09CWAC0 PAW-E2V18CWAC0

#### Modbus compatibility with monitoring system

Panasonic CO<sub>2</sub> condensing units - CR Series can be supervised by major monitoring system such as CAREL, Eliwell, Danfoss and RDM. Monitoring system ensures the recording, monitoring and reporting of temperature conditions etc... of entire CO<sub>2</sub> condensing units - CR Series system at shops.

#### Monitoring system









Standard boss & boss-mini

AK-SM Series\*

TelevisGo

**DMTOUCH** 

\* M2M1-10 gateway (Model code: FDS021) is required in addition to the monitoring system. M2M1-10 gateway is a local supply

#### New CO, service checker

The service checker is a useful tool which supports your technical tasks on the field such as commissioning, maintenance and troubleshooting for Panasonic CO, condensing units - CR Series. Panasonic will supply the DRX file where the Panasonic unit's library is included with the acquisition of the CO<sub>2</sub> service checker.

#### To use it, is necessary to download free Device Manager software from the Eliwell website:

Visit: https://www.eliwell.com/en/Family/DeviceManager.html using this QR.

Eliwell product name: Device Manager 100. Eliwell part number: DMP1000002000.





#### Main features:

- · Reading and recording variable technical parameters
- · Main technical parameters available\*: pressures, temperatures, opening of expansion valves, states of solenoid valves, rotational speeds of the gas-cooler fan motor, frequency and compressor's current, etc.
- · Setting change of operating values possible
- · 2D graph visualization for the detailed analysis
- · Monitoring an alarm status, for example the status of the compressor oil level, etc.
- \* Please check all the parameters available in the manual.

Model reference

PAW-C02-CHECKER

# Range of CO<sub>2</sub> condensing units - CR Series

Outdoor	MT	4,0 kW	7,0 kW	8,0 kW	15,0 kW	16,0 kW
units	LT	2,0 kW		4,0 kW		8,0 kW

4 kW MT / LT (200VF5A)



OCU-CR200VF5A OCU-CR200VF5ASL

7,5 kW MT (400VF8)



OCU-CR400VF8 OCU-CR400VF8SL

7,5 kW MT / LT (400VF8A)



OCU-CR400VF8A OCU-CR400VF8ASL

15 kW MT (1000VF8)



OCU-CR1000VF8 OCU-CR1000VF8SL

16 kW MT / LT (1000VF8A)



OCU-CR1000VF8A OCU-CR1000VF8ASL

#### ${\rm CO_2}$ Condensing units - CR Series







CO,



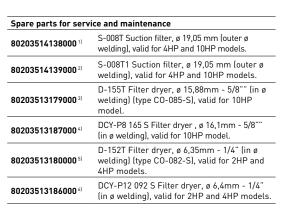


Standard outdoor unit			OCU-CR2	200VF5A	OCU-CR400VF8	OCU-CR4	00VF8A	OCU-CR1000VF8	OCU-CR1	000VF8A
Anti corrosion coating out	door unit		OCU-CR20	00VF5ASL	OCU-CR400VF8SL	OCU-CR40	OVF8ASL	OCU-CR1000VF8SL	OCU-CR10	00VF8ASL
Type (MT: medium temp. L	T: low temp.)		MT (4 kW)	/ LT (2 kW)	MT (7,5 kW)	MT (8 kW) /	LT (4 kW)	MT (15 kW)	MT (16 kW)	/ LT (8 kW)
	Voltage	V	220/23	30/240	380/400/415	380/400	0/415	380/400/415	380/40	0/415
Power supply	Phase		Single	phase	Three phase	Three p	hase	Three phase	Three	phase
	Frequency	Hz		0	50	50		50	5	
Cooling capacity at ET -10	°C AT 32 °C	kW	3,	70	7,10	7,7	7	14,00	15,	10
Cooling capacity at ET -35		kW	1,8	80	_	3,8	}		8,0	00
Evaporator connection			Mult	tiple	Multiple	Multi	ple	Multiple	Mult	iple
Evaporation temperature	Min ~ Max	°C	-45	~-5	-20~-5	-45~	-5	-20~-5	-45	~ -5
Ambient temperature	Min ~ Max	°C	-20 ~	+43	-20~+43	-20~	+45	-15~+43	-15~	+43
Refrigerant			R7	44	R744	R74	4	R744	R7	44
Design pressure liquid line	<u> </u>	Мра	1	2	8	8		8	8	}
Design pressure suction lir	ne	Мра	8	3	8	8		8	8	}
User system external alarr input. Non-voltage contact			Υe	es	Yes	Yes	5	Yes	Ye	:S
Liquid tube electromagneti		Vac	220/23	30/240	220/230/240	220/230	0/240	220/230/240	220/23	80/240
Showcase operation ON / O	OFF signal.		Yes		Yes	Yes		Yes	Yes	
Modbus communication lin		Ports	2		2	2		2	2	
Compressor type			2- stage rotary		2- stage rotary	2- stage rotary		2- stage rotary	2- stage rotary	
Dimension			930 x 900 x 437		948 x 1143 x 609	948 x 1143 x 609		1941 x 890 x 890	1941 x 890 x 890	
Net weight		Kg	70		136	149		293	320	
B	Suction pipe	Inch (mm)	3/8 (9,52)		1/2(12,70)	1/2(12,70)		3/4(19,05)	3/4(19,05)	
Piping diameter	Liquid pipe	Inch (mm)	1/4 (6,35)		3/8 (9,52)	3/8 (9,52)		5/8 (15,88)	5/8 (15,88)	
Length of connection pipin	g	m	2	5	50	50		100 1)	100	) 1]
PED		CAT	]	[	II	II		II	II	
Air flow		m³/min	54		59	59		220	220	
External static pressure		Pa	17		50	50		58	5	8
Heat recovery port			_		_	Yes		Yes —		:S
Standard performance										
Ambient temperature		°C	3	2	32	32		32	3	2
Evaporating temperature		°C	-10	-35	-10	-10	-35	-10	-10	-35
Cooling capacity		kW	3,70	1,80	7,10	7,7	3,8	14,00	15,10	8,00
Power consumption		kW	1,79	1,65	4,00	4,5	3,8	8,20	8,20	7,57
Nominal load ampere		Α	7,94	7,26	6,14	7,2	6,2	12,60	12,60	11,60
Sound pressure	Sound pressure dB(A)		35,5 <sup>2)</sup>	35,5 <sup>2]</sup>	33 3)	36,1 <sup>3]</sup>	36,1 <sup>3]</sup>	36,0 4)	36,0 <sup>4]</sup>	36,0 <sup>4)</sup>
Necessary accessories										
Drier filter liquid line, diameter 6,35 mm		D-152T / DCY-P12	Yes (inc		Yes (included: delivered with the unit)	Yes (incl delivered wit		_		-
Drier filter liquid line, diam 15,88 mm	neter	D-155T / DCY-P8	-	_	_	_		Yes (included: delivered with the unit)	Yes (ind	
Suction filter, diameter 19,05 mm (outer diameter welding)		S-008T / S-008T1	_	_	Yes (included: delivered with the unit)	Yes (incl		Yes (included: delivered with the unit)	Yes (inc	

1) PZ-68S (refrigeration oil) must be added if >50 m. 2) ET-10 °C, 65 S-1, 10 m from product. 3) ET-10 °C, 80 S-1, 10 m from product. 4) ET -10 °C, 60 S-1, 10 m from product.

Accessories	
PAW-C02-PANEL	Panel with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 12-12 ODF high pressure, size E2V09CSFC1
KIT-C02-PANEL-C-03	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V03CWAC0
KIT-C02-PANEL-C-05	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V05CWAC0
KIT-C02-PANEL-C-09	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V09CWAC0
KIT-C02-PANEL-C-11	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V11CWAC0
KIT-C02-PANEL-C-14	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V14CWAC0
KIT-C02-PANEL-C-18	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V18CWAC0
KIT-C02-PANEL-C-24	Panel-C with MPXPRO control, stator, probes, etc + Electronic Expansion Valve 3/8" ODF high pressure, size E2V24CWAC0
SPK-TU125	Service adaptor for vacuum and service (HP port and LP port) , valid for 2HP, 4HP and 10HP models.
PAW-C02-CHECKER	Service Checker for commissioning, maintenance and service, valid for 2HP, 4HP and 10HP models.
CZ-C02LBR0L500	Lubrication Oil PZ-68S (0.5L)*, valid for 2HP, 4HP and 10HP models.

\* You can find the PZ-68S oil "Safety Sheet" in the SAFETY section of our pipe selection software, available on our PRO Club platform. **Stock availability:** PAW-C02-PANEL until end of stock.



Compatibility relationship: 1] and 2] are compatible; 3] and 4] are compatible; 5] and 6] are compatible.

Stock availability: 1], 3] and 5] until end of stock.





















# Panasonic PACi NX Elite can cool rooms down to 8 °C

PACi

Panasonic PACi NX Elite offers a high quality and efficient solution for high temperature refrigeration applications for facilities such as wine cellars, food processing facilities and supermarkets.

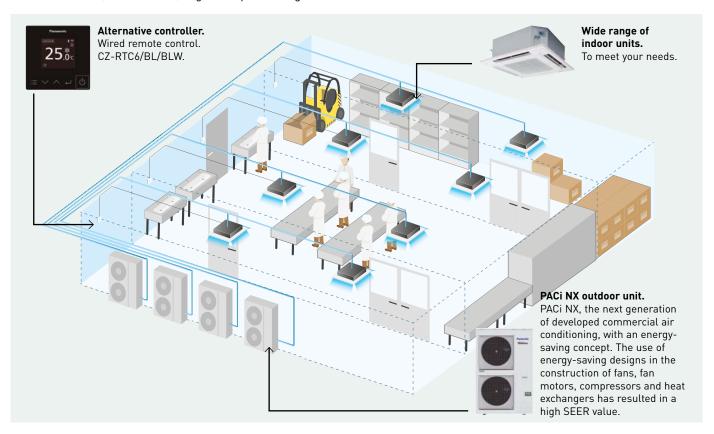


#### Solutions for cold rooms. Set the room temperature to 8 °C

Complete range from 2,1 to 23,2 kW. This unique solution is perfect for:

Wine cellars, ice cream factories, flower shops, supermarkets, grain stores, food storage, food processing, food distribution, lunchrooms, vegetable processing...

Just like all the indoor units in the PACi NX range, these units are compatible with all Panasonic control and monitoring solutions, which can be scaled from controlling a single zone to monitoring geographically distributed facilities.



- · Flexibility with different type of indoors
- · Benefits of hydroxyl radicals
- · Out of the box solution from Panasonic. Outdoor, indoor, controller comes as package
- · Provides wide scale of control options (individual, central, cloud)
- Redundancy for 2 systems with CONEX controller range and up to 3 systems with PAW-PACR3 optional redundancy controller



#### Wine cellars and special low temperature rooms

One of the main features of the PACi NX series is the possibility of adjusting the product for special applications, not just for regular cooling applications. The purpose of this product information is to explain in detail these special applications that need a cooling operation to maintain the room temperature at  $+8 \sim +24$  °C WB (or  $+10 \sim +30$  °C DB). In order to do this in terms of enthalpy, the indoor unit needs to be overdimensioned and certain parameters need to be adjustable.

Temperature range for wine cellar							
	Indoor	Outdoor					
Cooling operation	+8 ~ +24 °C WB	-5 (-15) ~ 43 °C DB					

# Temperature range for wine cellar. In cooling. Outdoor air intake temperature °C DB. 50 40 30 20 10 -10 -20 10 15 20 25 30 Indoor air intake temperature °C WB

Only allowed after installation of wind and snow vents.

Area where cooling capacity is established for this purpose.

## **Bringing nature's balance indoors**



#### nanoe™ X, technology with the benefits of hydroxyl radicals.

Abundant in nature, hydroxyl radicals (also known as OH radicals) have the capacity to inhibit pollutants, viruses, and bacteria to clean and deodorise. nanoe $^{\text{TM}}$  X technology can bring these incredible benefits indoors so that hard surfaces, soft furnishings, and the indoor environment can be a cleaner and more pleasant place to be.



# Panasonic's nanoe™ X technology takes this a step further and brings nature's detergent – hydroxyl radicals – indoors to help create an ideal environment

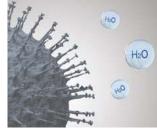
Thanks to the nanoe™ X properties, several types of pollutants can be inhibited such as certain types of bacteria, viruses, mould, allergens, pollen and certain hazardous substances.



1 | nanoe™ X reliably reaches pollutants.



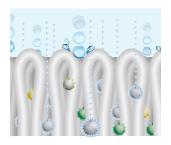
2 | Hydroxyl radicals denature pollutants proteins.



3 | Pollutants activity is inhibited.

#### What is unique about nanoe™ X?

## Effective on fabrics and surfaces.



1 | At one billionth of a metre, nanoe™ X is much smaller than steam and can deeply penetrate cloth fabrics to deodorise.

#### Longer lifespan.



2 | Contained in tiny water particles, nanoe™ X has a longer lifespan to spread easily around the room.

#### Huge quantity.



3 | nanoe X Generator Mark 2 produces 9,6 trillion hydroxyl radicals per second. Greater amounts of hydroxyl radicals contained in nanoe™ X lead to higher performance on inhibition of pollutants.

#### Maintenance-free.



4 No maintenance, no replacement required. nanoe™ X is a filter free solution that does not require maintenance, as its atomisation electrode is enveloped with water during its generation process and it is made with Titatium.

#### 7 effects of nanoe™ X - Panasonic unique technology

#### **Deodorises**

#### Capacity to inhibit 5 types of pollutants

#### **Moisturises**















Allergens

Refer to https://aircon.panasonic.eu for more details and validation data.

#### nanoe™ X, internationally-validated technology in testing facilities

The effectiveness of nanoe™ X technology has been tested by 3rd party laboratories in Germany, France, Denmark, Malaysia and Japan.

The nanoe $^{\text{TM}}$  X performance varies depending on the room size, environment and usage and it may take several hours to reach the full effect. nanoe  $^{\text{TM}}$  X is not medical device, local regulations on building design and sanitary recommendations must be followed.

Test results conducted under controlled laboratory conditions. Performance of nanoe  $^{\text{TM}}$  X might differ in real life environment.

	Tested contents		Result Capacity		Time	Testing organisation	Report No.
Airborne	Virus Bacteriophage ФX174		99,7 % inhibited	Approx. 25 m³	6 h	Kitasato Research Center for Environmental Science	24_0300_1
Airb	Bacteria	Staphylococcus aureus	99,9 % inhibited	Approx. 25 m³	4 h	Kitasato Research Center for Environmental Science	2016_0279
		SARS-CoV-2	91,4 % inhibited	6,7 m³	8 h	Texcell (France)	1140-01 C3
		SARS-CoV-2	99,9 % inhibited	45 L	2 h	Texcell (France)	1140-01 A1
	Virus	Xenotropic murine leukemia virus	99,999 % inhibited	45 L	6 h	Charles River Biopharmaceutical Services GmbH	_
Adhered		Influenza (H1N1 subtype)	99,9 % inhibited	1 m³	2 h	Kitasato Research Center for Environmental Science	21_0084_1
Adhe		Bacteriophage ФX174	99,80% inhibited	25 m³	8 h	Japan Food Research Laboratories	13001265005-01
	Bacteria	Staphylococcus 99,9 % inhibited 20 m <sup>3</sup>		20 m³	8 h	Danish Technological Institute	868988
	Pollen	Ambrosia pollen	99,4 % inhibited	20 m³	8 h	Danish Technological Institute	868988
	Odours	Cigarette smoke odour	Odour intensity reduced by 2,4 levels	Approx. 23 m³	0,2 h	Panasonic Product Analysis Center	4AA33-160615-N04

#### First nanoe™ device was developed by Panasonic in 2003

Generator

nanoe™ 480 billion hydroxyl radicals/sec

Mark 1 - 2016

Mark 2 - 2019

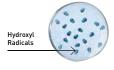
4,8 trillion hydroxyl radicals/sec

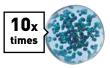
9,6 trillion hydroxyl radicals/sec

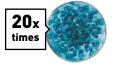
Improving Protection

24/7

Ion particle structure







nanoe™ X

#### nanoe™ X: **improving** protection 24/7



Acts to clean the work area, such as meat or fish handling in hotel kitchens, food handling in industrial processes, laboratories, wine cellars, etc. So that the indoor environment can be a cleaner and more pleasant place to be all day long and keep the processes in better bacterial conditions.

nanoe™ X works together with the cooling function when during the day but can work independently when the area is not occupied.

Give the system the strength to increase the protection of persons, air, colds stuffs and working surfaces with nanoe™ X technology and convenient control via the Panasonic Comfort Cloud App.

#### Cleans the air even when there is no work activity.

Leave the nanoe™ X mode ON to inhibit certain pollutants and deodorize before start the work activity again.

Improves your environment and better protects the products handled when you are or not at work.

Enjoy a cleaner comfortable space both when working indoors and simply when it comes to better protecting products in the cold room.

#### Panasonic Heating & Cooling Solutions is incorporating nanoe™ technology in a wide range of equipment



Wall-mounted. Built-in nanoe X Generator Mark 2.



Built-in nanoe X Generator Mark 2.





Adaptive ducted unit. Built-in nanoe X Generator Mark 2.



#### PACi NX Series Elite wall-mounted Inverter+ $\cdot$ R32

For light refrigeration applications.





							Low temperature			
Kit				36	50	60	71	100	125	140
Indoor u	nit - 1			S-6010PK3E	S-6010PK3E	S-6010PK3E	S-6010PK3Ex2	S-6010PK3E	S-6010PK3E	S-6010PK3E
Indoor u	nit - 2			_	_	_	_	S-6010PK3E	S-6010PK3E	S-6010PK3E
Outdoor	unit			U-36PZH3E5	U-50PZH3E5	U-60PZH3E5	U-71PZH3E5/8	U-100PZH3E5/8	U-125PZH3E5/8	U-140PZH3E5/8
	Indoor	Cooling capacity	kW	3,50	4,90	5,80	6,90	9,30	11,60	13,60
	15 °C	EER		4,55	3,83	3,56	3,14	3,60	3,09	3,19
	(WB)	Input power	kW	0,77	1,28	1,63	2,20	2,58	3,75	4,27
Outdoor	Indoor	Cooling capacity	kW	3,19	4,46	5,28	6,28	8,46	10,56	12,38
35 °C	12 °C	EER		4,22	3,55	3,30	2,91	3,35	2,87	2,96
(DB)	(WB)	Input power	kW	0,75	1,25	1,60	2,16	2,53	3,68	4,18
	Indoor	Cooling capacity	kW	2,10	2,94	3,27	4,14	5,58	6,96	8,16
	8 °C (WB)	EER		3,50	2,94	2,14	2,41	2,77	2,38	2,45
		Input power	kW	0,60	1,00	1,52	1,72	2,01	2,93	3,33
	Indoor	Cooling capacity	kW	3,75	5,24	5,92	7,04	9,95	12,41	14,55
	15 °C	EER		5,29	4,45	3,86	3,40	4,19	3,60	3,70
	(WB)	Input power	kW	0,71	1,18	1,53	2,07	2,37	3,45	3,93
Outdoor	Indoor	Cooling capacity	kW	3,43	4,80	5,39	6,42	9,11	11,37	13,33
30 °C	12 °C	EER		4,95	4,17	3,60	3,17	3,93	3,37	3,47
(DB)	(WB)	Input power	kW	0,69	1,15	1,50	2,02	2,32	3,38	3,84
	Indoor	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,96	8,16
	8 °C	EER		3,90	3,28	2,97	2,61	3,09	2,65	2,73
	(WB)	Input power	kW	0,54	0,90	1,17	1,58	1,81	2,63	2,99
		Dimension (HxWxD)	mm	302 x 1120 x 236						
Indoor ur	nit	Net weight	kg	14	14	14	14	14	14	14
		nanoe X Generator		Mark 2						
0		Dimension (HxWxD)	mm	695 x 875 x 320	695 x 875 x 320	695 x 875 x 320	996 x 940 x 340	1416 x 940 x 340	1416 x 940 x 340	1416 x 940 x 340
Outdoor	unit	Net weight	kg	42	42	43	65	98	98	98

Accessories	
CZ-RTC6	CONEX wired remote controller (non-wireless)
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®
CZ-RTC6BLW	CONEX wired remote controller with Wi-Fi and Bluetooth®
CZ-RTC5B	Wired remote controller with Econavi function and datanavi
CZ-RWS3	Infrared remote controller
PAW-PACR3	Interfaces to run 3 units on back-up and alternative run

Accessories	
PAW-WTRAY	Tray for condenser water compatible with outdoor elevation platform
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400 mm
CZ-CENSC1	Econavi energy savings sensor

#### **Technical focus**

- · Modern design with flat face and compact size
- $\cdot$  DC fan for better efficiency and control
- · Six directional piping outlet
- · nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard for better indoor air quality
- Wired remote control CZ-RTC6BL allows easy system setting via Bluetooth®
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be controlled by the remote control of the Panasonic indoor unit

#### **Closed discharge port**

When the unit is turned OFF, the flap closes completely to prevent dust getting into the unit and to keep the equipment clean.

#### **Quiet operation**

These units are among the quietest in the industry, making them ideal for all types of installations.

#### Piping outlet in six directions

Piping outlet is possible in six directions of; right, right rear, right bottom, left, left rear and left bottom, making the installation work more flexible.



#### PACi NX Series Elite 4 way 90x90 cassette Inverter+ · R32

For light refrigeration applications.



		Low temperature								•		
Kit			36	50	60	71	100	125	140	200	250	
Indoor u	nit - 1			S-6071PU3E	S-6071PU3E	S-6071PU3E	S-1014PU3E	S-1014PU3E	S-1014PU3E	S-1014PU3E	S-1014PU3E	S-1014PU3E
Indoor u	nit - 2			_	_	_	_	_	_	S-1014PU3E	S-1014PU3E	S-1014PU3E
Outdoor	unit			U-36PZH3E5	U-50PZH3E5	U-60PZH3E5	U-71PZH3E5/8	U-100PZH3E5/8	U-125PZH3E5/8	U-140PZH3E5/8	U-200PZH2E8	U-250PZH2E8
	Indoor	Cooling capacity	kW	3,50	4,90	5,80	6,90	9,30	11,60	13,60	18,50	23,20
	15 °C	EER		5,12	4,05	3,81	3,65	3,97	3,46	3,51	3,38	2,97
	(WB)	Input power	kW	0,68	1,21	1,52	1,89	2,34	3,35	3,88	5,48	7,82
Outdoor	Indoor	Cooling capacity	kW	3,19	4,46	5,28	6,28	8,46	10,56	12,38	16,84	21,11
35 °C	12 °C	EER		4,78	3,76	3,54	3,39	3,69	3,22	3,25	3,13	2,75
(DB)	(WB)	Input power	kW	0,67	1,19	1,49	1,85	2,29	3,28	3,80	5,37	7,66
	Indoor 8 °C (WB)	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	9,43	8,16	11,10	13,92
		EER		3,96	3,12	2,94	2,81	3,06	2,21	2,70	2,60	2,28
		Input power	kW	0,53	0,94	1,19	1,47	1,83	4,27	3,03	4,27	6,10
	Indoor 15 °C (WB)	Cooling capacity	kW	3,75	5,24	5,92	7,04	9,95	12,41	14,55	20,17	25,29
		EER		5,99	4,71	4,14	3,96	4,62	4,03	4,08	4,00	3,51
		Input power	kW	0,63	1,11	1,43	1,78	2,15	3,08	3,57	5,04	7,19
Outdoor	Indoor	Cooling capacity	kW	3,43	4,80	5,39	6,42	9,11	11,37	13,33	18,50	23,20
30 °C	12 °C	EER		5,60	4,41	3,86	3,69	4,33	3,77	3,82	3,75	3,30
(DB)	(WB)	Input power	kW	0,61	1,09	1,40	1,74	2,11	3,02	3,49	4,93	7,04
	Indoor	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,96	8,16	11,10	13,92
	8 °C	EER		4,41	3,47	3,18	3,04	3,41	2,97	3,00	2,89	2,54
	(WB)	Input power	kW	0,48	0,85	1,09	1,36	1,64	2,35	2,72	3,84	5,47
		Dimension (HxWxD)	mm	256x840x840	256x840x840	256x840x840	319x840x840	319x840x840	319x840x840	319x840x840	319x840x840	319x840x840
Indoor ur	iit	Net weight	kg	19	19	20	20	25	25	25	25	25
		nanoe X Generator		Mark 1	Mark 1	Mark 1	Mark 1	Mark 1	Mark 1	Mark 1	Mark 1	Mark 1
Outdoor i	ınit	Dimension (HxWxD)	mm	695x875x320	695x875x320	695x875x320	996x940x340	1416x940x340	1416x940x340	1416x940x340	1500x980x370	1500x980x370
- Outdoor t		Net weight	kg	42	42	43	65	98	98	98	117	128

Accessories	
CZ-RTC6	CONEX wired remote controller (non-wireless)
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®
CZ-RTC6BLW	CONEX wired remote controller with Wi-Fi and Bluetooth®
CZ-RTC5B	Wired remote controller with Econavi function and datanavi
CZ-RWS3 + CZ-RWRU3W	Infrared remote controller and receiver

Accessories	
CZ-KPU3AW	Econavi exclusive panel
PAW-WTRAY	Tray for condenser water compatible with outdoor elevation platform
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400 mm
CZ-FDU3+CZ-ATU2	Fresh air-intake kit

#### **Technical focus**

- · High performance turbo fan
- · Econavi: An optional intelligent sensor to reduce waste of energy
- · nanoe<sup>TM</sup> X (Generator Mark 1= 4,8 trillion hydroxyl radicals/sec) as standard for better indoor air quality, indoor unit internal cleaning with nanoe<sup>TM</sup> X and dry operation
- · Lower noise in slow fan operation
- $\cdot$  Light weight, easy piping and integrated drain pump for quick installation
- $\cdot$  Wired remote control CZ-RTC6BL allows easy system setting via Bluetooth®
- · High volume fresh air input with optional air-intake plenum and chamber (CZ-FDU3+CZ-ATU2)



#### PACi NX Series Elite ceiling Inverter+ · R32

For light refrigeration applications.



			Low temperature									
Kit			36	50	60	71	100	125	140	200	250	
Indoor ur	nit - 1			S-6071PT3E	S-6071PT3E	S-1014PT3E	S-1014PT3E	S-1014PT3E	S-1014PT3E	S-1014PT3E	S-1014PT3E	S-1014PT3E
Indoor ur	nit - 2			_	_	_	_	_	_	S-1014PT3E	S-1014PT3E	S-1014PT3E
Outdoor	unit			U-36PZH3E5	U-50PZH3E5	U-60PZH3E5	U-71PZH3E5/8	U-100PZH3E5/8	U-125PZH3E5/8	U-140PZH3E5/8	U-200PZH2E8	U-250PZH2E8
	Indoor	Cooling capacity	kW	3,50	4,90	5,80	6,90	9,30	11,60	13,60	18,50	23,20
	15 °C	EER		4,67	3,71	3,63	3,67	3,92	3,30	3,45	3,32	2,92
	(WB)	Input power	kW	0,75	1,32	1,60	1,88	2,37	3,52	3,94	5,57	7,94
Outdoor	Indoor	Cooling capacity	kW	3,19	4,46	5,28	6,28	8,46	10,56	12,38	16,84	21,11
35 °C	12 °C	EER		4,33	3,45	3,37	3,41	3,64	3,06	3,21	3,08	2,71
(DB)	(WB)	Input power	kW	0,74	1,29	1,57	1,84	2,32	3,45	3,86	5,46	7,78
	Indoor 8 °C (WB)	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,51	8,16	11,10	13,92
		EER		3,59	2,86	2,79	2,82	3,02	2,98	2,66	2,55	2,25
		Input power	kW	0,59	1,03	1,25	1,47	1,85	2,19	3,07	4,34	6,19
	Indoor 15 °C (WB)	Cooling capacity	kW	3,75	5,24	5,92	7,04	9,95	12,41	14,55	20,17	25,29
		EER		5,43	4,32	3,93	3,98	4,56	3,83	4,01	3,94	3,46
		Input power	kW	0,69	1,21	1,50	1,77	2,18	3,24	3,62	5,12	7,30
Outdoor	Indoor	Cooling capacity	kW	3,43	4,80	5,39	6,42	9,11	11,37	13,33	18,50	23,20
30 °C	12 °C	EER		5,08	4,04	3,66	3,71	4,27	3,59	3,76	3,69	3,25
(DB)	(WB)	Input power	kW	0,68	1,19	1,47	1,73	2,13	3,17	3,55	5,01	7,15
	Indoor	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,96	8,16	11,10	13,92
	8 °C	EER		4,00	3,18	3,02	3,06	3,36	2,82	2,96	2,85	2,50
	(WB)	Input power	kW	0,53	0,92	1,15	1,35	1,66	2,46	2,76	3,90	5,56
		Dimension (HxWxD)	mm	235x1275x690	235x1275x690	235x1590x690	235x1590x690	235x1590x690	235x1590x690	235x1590x690	235x1590x690	235x1590x690
Indoor ur	nit	Net weight	kg	34	34	40	40	40	40	40	40	40
		nanoe X Generator		Mark 2	Mark 2	Mark 2	Mark 2	Mark 2				
Outdoor i	. mit	Dimension (HxWxD)	mm	695x875x320	695x875x320	695x875x320	996x940x340	1416x940x340	1416x940x340	1416x940x340	1500x980x370	1500x980x370
outdoor t	ınıt	Net weight	kg	42	42	43	65	98	98	98	117	128

Accessories	
CZ-RTC6	CONEX wired remote controller (non-wireless)
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®
CZ-RTC6BLW	CONEX wired remote controller with Wi-Fi and Bluetooth®
CZ-RTC5B	Wired remote controller with Econavi function and datanavi
CZ-RWS3 + CZ-RWRT3	Infrared remote controller and receiver

Tray for condenser water compatible with outdoor elevation platform
Outdoor base ground support for noise and vibration absorption
Outdoor elevation platform 400 x 900 x 400 mm
Econavi energy savings sensor

#### **Technical focus**

- · Wide air distribution for large rooms
- · Horizontal air flow reaches maximum 9,5 m
- · Fresh air connection available on the unit
- $\cdot$  Slim design with 235 m height fits narrow space
- · Silent operation
- nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard for better indoor air quality
- Wired remote control CZ-RTC6BL allows easy system setting via Bluetooth®
- · Twin, Triple and Double-twin split options
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be controlled by the remote control of the Panasonic indoor unit

#### Further comfort improvement with airflow distribution

Horizontal air flow reaches maximum 9,5 m. This is ideal for wide rooms.

The wide air discharge opening expands the air flow to the left and right. The unpleasant feeling caused when the air flow directly hits the human body is prevented by the "Draft prevention position", which changes the swing width, so that the degree of comfort is increased.

#### PACi NX Series Elite adaptive ducted unit Inverter+ · R32

For light refrigeration applications.



		Low temperature										
Kit				36	50	60	71	100	125	140	200	250
Indoor u	nit - 1			S-6071PF3E	S-6071PF3E	S-6071PF3E	S-1014PF3E	S-1014PF3E	S-1014PF3E	S-1014PF3E	S-1014PF3E	S-1014PF3E
Indoor u	nit - 2			_	_	_	_	_	_	S-1014PF3E	S-1014PF3E	S-1014PF3E
Outdoor	unit			U-36PZH3E5	U-50PZH3E5	U-60PZH3E5	U-71PZH3E5/8	U-100PZH3E5/8	U-125PZH3E5/8	U-140PZH3E5/8	U-200PZH2E8	U-250PZH2E8
	Indoor	Cooling capacity	kW	3,50	4,90	5,80	0,00	9,30	11,60	13,60	18,50	23,20
	15 °C	EER		3,98	3,20	3,52	3,50	3,94	3,36	3,64	3,50	3,08
	(WB)	Input power	kW	0,88	1,53	1,65	1,97	2,36	3,45	3,74	5,29	7,54
Outdoor	Indoor	Cooling capacity	kW	3,19	4,46	5,28	6,28	8,46	10,56	12,38	16,84	21,11
35 °C	12 °C	EER		3,69	2,97	3,26	3,25	3,66	3,12	3,38	3,25	2,86
(DB)	(WB)	Input power	kW	0,86	1,50	1,62	1,93	2,31	3,38	3,67	5,18	7,39
	Indoor 8 °C (WB)	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,96	8,16	11,10	13,92
		EER		3,06	2,46	2,70	2,69	3,03	2,59	2,80	2,69	2,37
		Input power	kW	0,69	1,19	1,29	1,54	1,84	2,69	2,92	4,13	5,88
	Indoor 15 °C (WB)	Cooling capacity	kW	3,75	5,24	5,92	7,04	9,95	12,41	14,55	20,17	25,29
		EER		4,63	3,72	3,81	3,80	4,58	3,91	4,23	4,14	3,65
		Input power	kW	0,81	1,41	1,55	1,85	2,17	3,17	3,44	4,87	6,94
Outdoor	Indoor	Cooling capacity	kW	3,43	4,80	5,39	6,42	9,11	11,37	13,33	18,50	23,20
30 °C	12 °C	EER		4,33	3,49	3,55	3,54	4,29	3,66	3,96	3,89	3,42
(DB)	(WB)	Input power	kW	0,79	1,38	1,52	1,81	2,12	3,11	3,37	4,76	6,79
	Indoor	Cooling capacity	kW	2,10	2,94	3,48	4,14	5,58	6,96	8,16	11,10	13,92
	8 °C	EER		3,41	2,75	2,93	2,92	3,38	2,88	3,12	3,00	2,64
	(WB)	Input power	kW	0,62	1,07	1,19	1,42	1,65	2,42	2,62	3,70	5,28
Indoor unit		Dimension (HxWxD)	mm	250x1000x730	250x1000x730	250x1000x730	250x1400x730	250x1400x730	250x1400x730	250x1400x730	250x1400x730	250x1400x730
		Net weight	kg	30	30	30	39	39	39	39	39	39
		nanoe X Generator		Mark 2	Mark 2	Mark 2	Mark 2	Mark 2				
Outdoor	. mit	Dimension (HxWxD)	mm	695x875x320	695x875x320	695x875x320	996x940x340	1416x940x340	1416x940x340	1416x940x340	1500x980x370	1500x980x370
outaoor	JIIIL	Net weight	kg	42	42	43	65	98	98	98	117	128

Accessories	
CZ-RTC6	CONEX wired remote controller (non-wireless)
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®
CZ-RTC6BLW	CONEX wired remote controller with Wi-Fi and Bluetooth®
CZ-RTC5B	Wired remote controller with Econavi function and datanavi
CZ-RWS3 + CZ-RWRC3	Infrared remote controller and receiver
PAW-WTRAY	Tray for condenser water compatible with outdoor elevation platform

Accessories	
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400 mm
CZ-CENSC1	Econavi energy savings sensor
CZ-56DAF2	Air outlet plenum for S-3650PF3E
CZ-90DAF2	Air outlet plenum for S-6071PF3E
CZ-160DAF2	Air outlet plenum for S-1014PF3E

#### **Technical focus**

- · 2 installation possibilities (horizontal / vertical)
- · Maximum external static pressure: 150 Pa
- · Selectable inlet air position (rear / bottom entry)
- · Improved drain pan suitable for both horizontal / vertical installation
- · Drain pump included
- nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard for the long duct piping case\*
- · Wired remote control CZ-RTC6BL allows easy system setting via Bluetooth®
- \* The performance of nanoe™ X air can be expected even by 10 m long duct by Panasonic internal survey.

# 2 installation possibilities (horizontal / vertical)

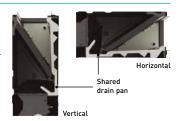
Vertical installation is newly available. ESP 150Pa, sufficient for remotely installing units away from the rooms.



#### Improved drain pan design

Drain pan is shared in both cases horizontal and vertical installation.

No need to modify the unit.



# **Panasonic**®

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