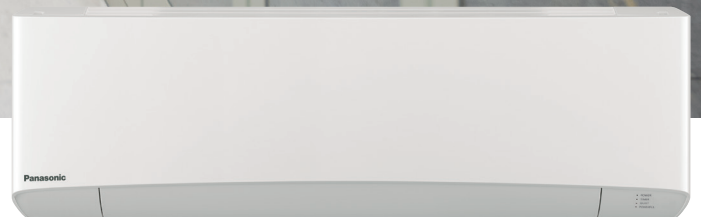


# Panasonic

## NEW WALL MOUNTED AIR CONDITIONER PROFESSIONAL INVERTER -20°C

Complete line-up with high  
efficiency even at -20°C



60<sup>th</sup> Anniversary

heating & cooling solutions



# COMPLETE LINE-UP WITH HIGH EFFICIENCY EVEN AT -20°C



- Designed for 24h/7d a week operation
- Server room logic control PAW-SERVER-PKEA
- Wide range: 5 capacities from 2.5 to 7.1kW
- Highest Energy Rating: A+++ (2.5 to 5kW units)
- Highly efficient performance - even at -20°C outside
- Uses new R32 refrigerant
- High durability rolling bearings
- Additional piping sensors to prevent freezing
- Wired control included

## High efficiency all year round

This Wall Mounted air conditioner is designed for professional, critical applications such as computer rooms where reliable cooling inside the room is necessary even when the outside temperature is low.



## Complete line-up with high efficiency even at -20°C

### Indoor Fan. Cross-Flow-Fan.

- High durability rolling bearings, large size (φ105mm) fan
- High efficiency blade
- Random pitch blade (low sound)

### Compressor.

DC2P Panasonic original compressor, with high efficiency and reliability.

### Why is the Panasonic R2 Rotary Compressor so efficient?

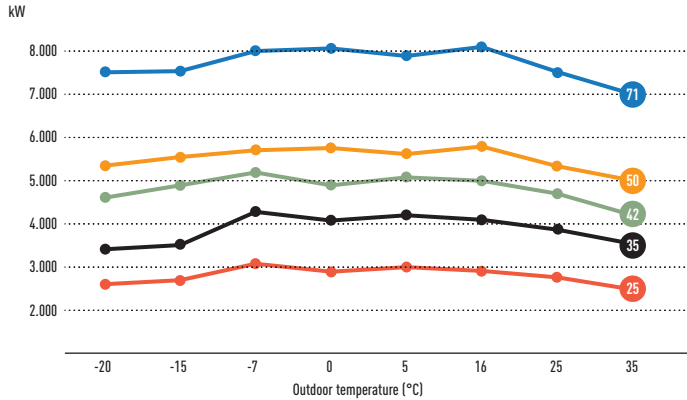
1. High efficiency motor: the premium silicon steel motor meets industry efficiency requirements
2. Improved lubrication of high volume oil pump: the extended, high volume oil pump in conjunction with a larger capacity oil reservoir provides superior lubrication
3. Accumulator has larger refrigerant capacity: the larger accumulator accommodates generous refrigerant amounts needed in longer pipe length installations



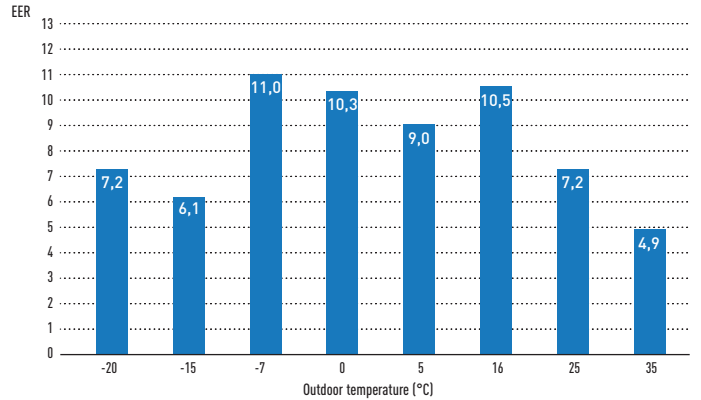
TKEA series is the solution for small server room applications, where simplicity, reliability and low operating range are all required. Designed to maintain capacity, even during severe outdoor conditions, the TKEA series will work with exceptional performance - even when it is as low as -20°C outside.

**Exceptional efficiency means exceptional savings**

**PKEA provides high capacity at -20°C!**



**EER at different outdoor temperature KIT-Z25-TKEA**

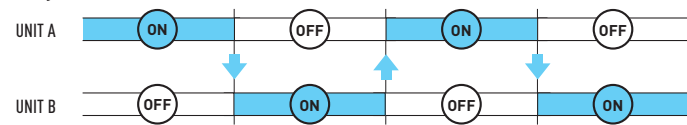


**PAW-SERVER-PKEA Logic**

Group wiring of 2 TKEA systems ensures auto individual control.

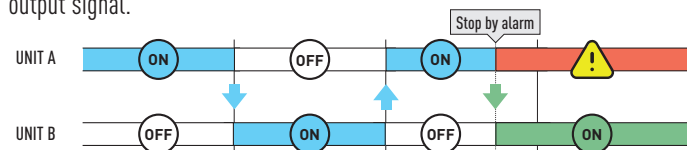
**Rotation operation time line**

Every 12 hours units change operation On/Off to increase compressor lifecycle.



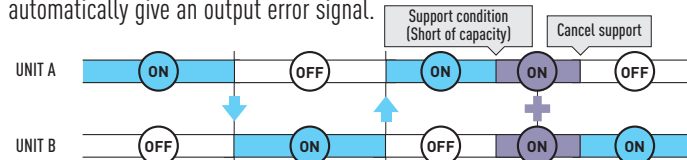
**Back up operation time line**

When unit A has an error, unit B switches on automatically and gives the error output signal.



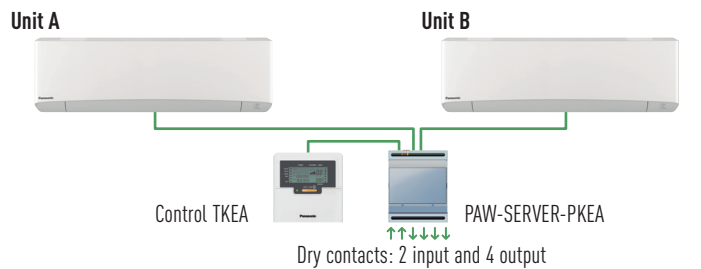
**Support operation time line**

When room temperature rises to than 28°C, both units work together and automatically give an output error signal.



**Server room logic with control PAW-SERVER-PKEA**

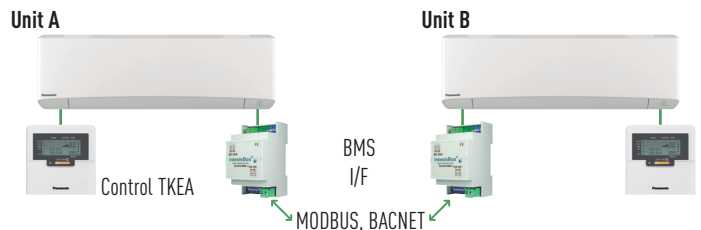
This simple control can operate the server room logic with 2 TKEA units: Redundancy, Back up and support operation. Also it has dry contacts for external control: 2 inputs and 4 outputs. PAW-SERVER-PKEA is ready to install in Standard DIN Rail



Inputs	Output
ON/OFF Unit A	Status Unit A and B
ON/OFF Unit B	Alarm Unit A and B

**Server room logic BMS interface**

For full BMS integration with bidirectional communication, Panasonic offer different interfaces for integrate to Modbus and Bacnet. This devices are also compatible with Standard DIN Rail

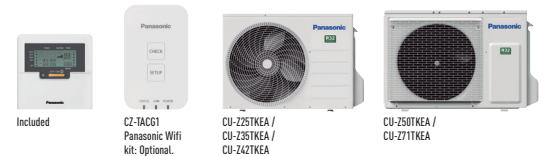


**R32 Refrigerant Gas: 75% less impact on global warming than R410A**

Be ready for the future, the new generation of Panasonic heating and cooling systems are designed to optimize the operation with R32 refrigerant. The new R32 Refrigerant is more environmentally friendly than R410a widely used over recent years. R32 has zero impact on the ozone layer and it has 75% less impact on global warming vs R410A.



# NEW Wall Mounted Professional Inverter -20°C R32 GAS



KIT			KIT-Z25-TKEA	KIT-Z35-TKEA	KIT-Z42-TKEA	KIT-Z50-TKEA	KIT-Z71-TKEA
Cooling capacity	Nominal (Min - Max)	kW	2,50 (0,85 - 3,00)	3,50 (0,85 - 4,00)	4,20 (0,98 - 5,00)	5,00 (0,98 - 6,00)	7,10 (0,98 - 8,10)
EER <sup>1)</sup>	Nominal (Min - Max)	W/W	4,90 (5,00 - 4,29) A	4,07 (5,00 - 3,64) A	3,82 (4,90 - 3,25) A	3,60 (3,50 - 3,09) A	3,17 (2,33 - 3,03) B
SEER <sup>2)</sup>		W/W	8,50 A+++	8,50 A+++	8,50 A+++	8,50 A+++	6,10 A++
Pdesign		kW	2,5	3,5	4,2	5,0	7,1
Input power cooling	Nominal (Min - Max)	kW	0,51 (0,17 - 0,70)	0,86 (0,17 - 1,10)	1,10 (0,20 - 1,54)	1,39 (0,28 - 1,94)	2,24 (0,42 - 2,67)
Annual energy consumption <sup>3)</sup>		kWh/a	103	144	173	206	407
Heating capacity	Nominal (Min - Max)	kW	3,40 (0,85 - 5,40)	4,00 (0,85 - 6,60)	5,40 (0,98 - 7,25)	5,80 (0,98 - 8,00)	8,60 (0,98 - 9,90)
Heating capacity at -7°C		kW	3,33	4,07	4,30	5,00	6,13
COP <sup>1)</sup>	Nominal (Min - Max)	W/W	4,86 (5,15 - 4,12) A	4,35 (5,15 - 3,63) A	4,00 (4,45 - 3,37) A	4,03 (2,88 - 3,20) A	3,51 (2,45 - 3,47) B
SCOP <sup>2)</sup>		W/W	4,50 A+	4,40 A+	4,30 A+	4,40 A+	4,00 A+
Pdesign at -10°C		kW	2,8	3,6	3,8	4,4	5,5
Input power heating	Nominal (Min - Max)	kW	0,70 (0,17 - 1,31)	0,92 (0,17 - 1,82)	1,35 (0,22 - 2,15)	1,44 (0,34 - 2,50)	2,45 (0,40 - 2,85)
Annual energy consumption <sup>3)</sup>		kWh/a	871	1145	1237	1400	1925
<b>Indoor unit</b>			<b>CS-Z25TKEA</b>	<b>CS-Z35TKEA</b>	<b>CS-Z42TKEA</b>	<b>CS-Z50TKEA</b>	<b>CS-Z71TKEA</b>
Power source		V	230	230	230	230	230
Recommended fuse		A	16	16	16	16	20
Connection indoor / outdoor		mm <sup>2</sup>	4 x 1,5	4 x 1,5	4 x 1,5	4 x 2,5	4 x 2,5
Air Volume	Cool / Heat	m <sup>3</sup> /min	10,4/11,7	10,7/12,4	18,2/20,2	19,2/21,3	20,2/21,0
Moisture removal volume		L/h	1,5	2,0	2,4	2,8	4,1
Sound pressure <sup>4)</sup>	Cool (Hi / Lo / Q-Lo)	dB(A)	39/25/21	42/28/21	43/32/29	44/37/30	47/38/35
	Heat (Hi / Lo / Q-Lo)	dB(A)	41/27/22	43/30/22	44/35/29	44/37/30	47/38/35
Dimension / Net weight	H x W x D	mm / kg	295 x 919 x 194 / 9	295 x 919 x 194 / 10	302 x 1120 x 236 / 12	302 x 1120 x 236 / 12	302 x 1120 x 236 / 13
<b>Outdoor unit</b>			<b>CU-Z25TKEA</b>	<b>CU-Z35TKEA</b>	<b>CU-Z42TKEA</b>	<b>CU-Z50TKEA</b>	<b>CU-Z71TKEA</b>
Sound pressure <sup>4)</sup>	Cool / Heat (Hi)	dB(A)	46/48	48/50	48/50	48/50	52/54
Dimension <sup>5)</sup> / Net weight	H x W x D	mm / kg	619 x 824 x 299 / 37	619 x 824 x 299 / 38	619 x 824 x 299 / 38	695 x 875 x 320 / 43	695 x 875 x 320 / 49
Piping connections	Liquid pipe	Inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	Inch (mm)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)	1/2 (12,70)	5/8 (15,88)
Pipe length range		m	3 ~ 20	3 ~ 20	3 ~ 20	3 ~ 30	3 ~ 30
Elevation difference (in/out) <sup>6)</sup>		m	15	15	15	15	20
Pipe length for additional gas		m	7,5	7,5	7,5	7,5	10
Additional gas amount		g/m	10	10	10	15	25
Refrigerant (R32)		kg/TCO <sub>2</sub> Eq.	0,96 / 0,648	1,00 / 0,675	1,08 / 0,729	1,15 / 0,776	1,32 / 0,891
Operating range	Cool Min ~ Max	°C	-20 ~ +43	-20 ~ +43	-20 ~ +43	-20 ~ +43	-20 ~ +43
	Heat Min ~ Max	°C	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24

Accessories	
<b>CZ-TACG1</b>	NEW Panasonic Wifi kit for internet control
<b>CZ-CAPRA1</b>	RAC interface adapter for integration into P Link
<b>PAW-AC-BAC-1</b>	BacNet interface for TKE and UKE models
<b>PAW-AC-MBS-1</b>	Modbus interface for TKE and UKE models

Accessories	
<b>PAW-WTRAY</b>	Tray for condenser water compatible with base ground support
<b>PAW-GRDSTD40</b>	Outdoor elevation platform
<b>PAW-GRDBSE20</b>	Outdoor base ground support for noise and vibration absorption
<b>PAW-SERVER-PKEA</b>	PCB for installation in server rooms with security

1) EER and COP calculation is based in accordance to EN14511. 2) Energy Label Scale from A+++ to D. 3) The annual energy consumption is calculated in accordance to EU/624/2011. 4) The sound pressure of the units shows the value measured of a position 1m in front of the main body and 0,8m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. Q-Lo: Quiet mode. Lo: The lowest fan speed. 5) Add 70mm for piping port. 6) When installing the outdoor unit at a higher position than the indoor unit.

Our heat pumps containing the refrigerant R32 show a drastic reduction in the value of Global Warming Potential (GWP).	Seasonal efficiency in cooling will bring you saving all year while heating. Energy efficiency rank from A+++ to D.	Seasonal efficiency in heating will bring you saving all year while heating. Energy efficiency rank from A+++ to D.	Inverter Plus System classification highlight the Panasonic highest performing systems	Panasonic R2 Rotary Compressor. Designed to withstand extreme conditions, it delivers high performance and efficiency.	With Super Quiet technology our devices are much more quiet than a library (30dB(A)).	Down to -20°C in cooling only mode. The air conditioner works in cooling only mode with an outdoor temperature of -20°C.	Down to -15°C in heating mode. The air conditioner works in heat pump mode with an outdoor temperature as low as -15°C.	The Panasonic renewal system allows good quality existing R410A or R22 pipe work to be re-used whilst installing new high efficiency R32 systems.	This unit is ready to connect to internet and be managed by smartphone, with a powerful and user friendly App to manage the comfort wherever you are.	Ready to be integrated and be managed by Panasonic centralized systems with CZ-CAPRA1	Communication port to integrate the unit to home and building management systems most known standards.	5 Years Warranty. We guarantee the outdoor unit compressors in the entire range for five years.

## Panasonic

To find out how Panasonic cares for you, log on to: [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu)

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heating & cooling solutions