Mini ECOi LZ2 Series R32

Outstanding efficiency in a compact body and continuous operation even at extreme ambient temperatures.
VRF with outstanding energy-saving performance and superior SEER and SCOP.

SEER 8,50 [1] SCOP 5,05 [1]

Extraordinary savings.

R32

Reliable quality - R32 standard-compliant [2].

Panasonic DNA compressors.

Low height 996 mm.

HIGH ESP

High external static pressure 35 Pa.

Quiet mode operation with low capacity drop.

52°C
-20°C

Continuous operation at extreme ambient temperatures.

150 %

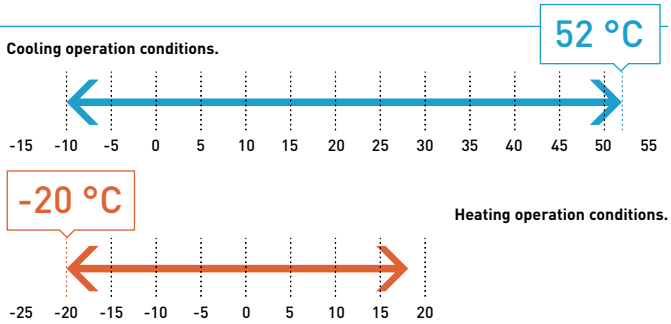
Increased indoor / outdoor capacity ratio up to 150%.

1) for 4 HP model. 2) Panasonic's R32 safety measures comply with IEC 60335-2-40 (ed. 7.0) and EN 378 (ISO 5149).

Mini ECOi LZ2 provides the optimal performance in any climatic condition.

Extended design operation conditions

LZ2 mini VRF is extremely reliable even under the most difficult conditions.The units can operate in cooling mode at extreme temperatures, 52 °C in cooling and -20 °C in heating mode.



Cooling: Outside air temperature ˚C (DB). Heating: Outside air temperature ˚C (WB).

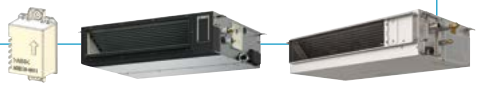
Compatible with a large range of indoor units and controls

An expansion of Panasonic VRF line up, the Mini ECOi R32 is compatible with a large range of indoor units, either supporting Panasonic's optional R32 refrigerant leak detector alarm or having built-in detectors provide a great flexibility for all types of installation, and can utilize all Panasonic's scalable control and monitoring solutions.

Connects R32 refrigerant leak detector - CZ-CGLSC2

4 way 90x90 cassette | 4 way 60x60 cassette | Wall-mounted

Built-in R32 sensors



Variable static pressure adaptive duct | Slim variable static pressure hide-away

Panasonic R32 refrigerant leak detector/alarm (optional)

The optional R32 refrigerant leak detector (CZ-CGLSC2) is available for compatible indoor units, allowing customers to determine if the detector is required for safety compliance or if the indoor unit can be installed without it. This sensor includes an integrated alarm buzzer and can connect to a central alarm system. It links to the indoor unit's remote control terminals and is compatible with any VRF remote controllers, wired or wireless.

Connects Panasonic R32 refrigerant leak detector.
CZ-CGLSC2

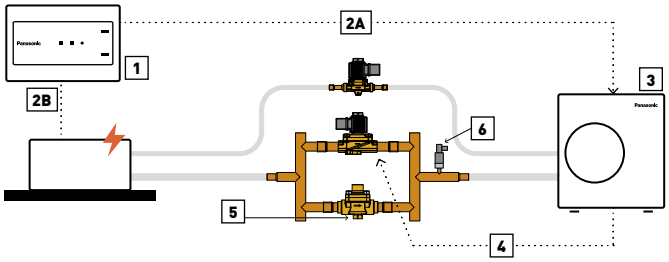
The alarm triggered by the Panasonic R32 refrigerant leak detector will also be transmitted and displayed on any connected centralised controller.

* Only one remote controller can be connected with the Panasonic R32 refrigerant leak detector.

Non-voltage contact external output, maximum allowable voltage: DC 24 V (for central monitoring, etc.).

R32 Pump Down solution

R32 Pump Down solution offers the assurance of additional safety protection, whilst expanding the potential installation cases, allowing for installation within smaller rooms.
Suitable for the Mini ECOi LZ2 range up to 10 HP, compatible indoor units connected to CZ-CGLSC2 or integrated Panasonic R32 refrigerant leak detector.



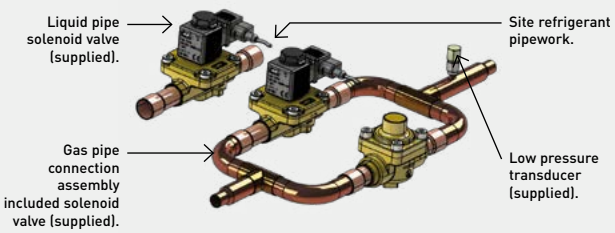
Operation steps: 1 | A leak is detected by the leak detection sensor. 2A | Leak alarm signal is sent to the outdoor unit. 2B | Indoor unit fan activated and runs at maximum speed. 3 | Pump Down procedure is activated. 4 | Solenoid valves are closed preventing refrigerant returning to indoor units. 5 | Outdoor unit is operating in Pump Down mode and check valve only allows flow to the outdoor unit. 6 | Low pressure switch threshold is reached. Error signal isolates the outdoor unit, preventing restart.

Technical focus

- Simplified design and installation
- Complies with IEC 60335-2-40 ed.6.0
- Recovers base charge within outdoor unit
- Expands potential installation cases
- IP rated connections for outdoor installation

Model reference	Description
PAW-PUD2WB-1	Basic Pump Down system (2 way) for one R32 Mini ECOi outdoor unit

Pump Down kit.
Indication of the items included within the Pump Down kit.



Mini ECOi LZ2 Series 4 to 6 HP · R32

Outstanding efficiency in a compact body and continuous operation even at extreme ambient temperatures.

· SEER levels up to 8,5 and SCOP levels up to 5,0 (for 4 HP model)
· Continuous operation at extreme ambient temperatures: -20 °C (heating) to 52 °C (cooling)
· Unique indoors with nanoe™ X, hydroxyl radicals contained in water

Low height
996 mm

HP			4 HP	5 HP	6 HP	4 HP	5 HP	6 HP
Outdoor unit			**U-4LZ2E5**	**U-5LZ2E5**	**U-6LZ2E5**	**U-4LZ2E8**	**U-5LZ2E8**	**U-6LZ2E8**
Power supply	Voltage	V	220 - 230 - 240	220 - 230 - 240	220 - 230 - 240	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415
	Phase		Single phase	Single phase	Single phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Cooling capacity		kW	12,1	14,0	15,5	12,1	14,0	15,5
EER [1]		W/W	4,53	4,12	3,88	4,53	4,12	3,88
Current		A	13,30 - 12,80 - 12,20	16,90 - 16,20 - 15,50	19,60 - 18,70 - 18,00	4,37 - 4,15 - 4,00	5,50 - 5,23 - 5,04	6,44 - 6,12 - 5,89
Input power		kW	2,67	3,40	4,00	2,67	3,40	4,00
Heating capacity		kW	12,5	16,0	16,5	12,5	16,0	16,5
COP [1]		W/W	5,27	4,71	4,42	5,27	4,71	4,42
Current		A	12,00 - 11,40 - 11,00	16,90 - 16,20 - 15,50	18,50 - 17,70 - 17,00	3,91 - 3,71 - 3,58	5,50 - 5,22 - 5,03	6,02 - 5,72 - 5,51
Input power		kW	2,37	3,40	3,73	2,37	3,40	3,73
Starting current		A	1,0	1,0	1,0	1,0	1,0	1,0
Maximum current		A	19,6	23,7	26,5	7,2	9,2	9,9
Maximum input power		kW	3,92 - 4,10 - 4,28	4,76 - 4,98 - 5,19	5,41 - 5,66 - 5,90	4,40 - 4,63 - 4,80	5,69 - 5,99 - 6,22	6,15 - 6,47 - 6,72
Maximum number of connectable indoor units [2]			7 (10)	8 (12)	9 (12)	7 (10)	8 (12)	9 (12)
External static pressure		Pa	0 ~ 35	0 ~ 35	0 ~ 35	0 ~ 35	0 ~ 35	0 ~ 35
Air flow		m^3/min	69	72	74	69	72	74
Sound pressure	Cool	dB(A)	52	53	54	52	53	54
	Cool (Silent 1/2/3/4)	dB(A)	49/47/45/45	50/48/46/45	51/49/47/45	49/47/45/45	50/48/46/45	51/49/47/45
	Heat	dB(A)	54	56	56	54	56	56
Sound power	Cool / Heat	dB(A)	69/72	70/74	72/75	69/72	70/74	72/75
Dimension	H x W x D	mm	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370
Net weight		kg	94	94	94	94	94	94
Piping diameter	Liquid	Inch (mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)
	Gas	Inch (mm)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)
Maximum piping length (total)		m	90 (180)	90 (180)	90 (180)	90 (180)	90 (180)	90 (180)
Elevation difference (in / out)		m	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)
Refrigerant (R32)		kg	2,7	2,7	2,7	2,7	2,7	2,7
Maximum allowable indoor / outdoor capacity ratio [3]		%	50 ~ 150 (130)	50 ~ 150 (130)	50 ~ 150 (130)	50 ~ 150 (130)	50 ~ 150 (130)	50 ~ 150 (130)
Operating range	Cool Min ~ Max	°C	-10 ~ 52	-10 ~ 52	-10 ~ 52	-10 ~ 52	-10 ~ 52	-10 ~ 52
	Heat Min ~ Max	°C	-20 ~ 18	-20 ~ 18	-20 ~ 18	-20 ~ 18	-20 ~ 18	-20 ~ 18

ErP data [4]						
SEER [5]	**8,50**	**8,12**	**7,71**	**8,50**	**8,12**	**7,71**
$\eta_{s,c}$	**337,0%**	**321,8%**	**305,4%**	**337,0%**	**321,8%**	**305,4%**
SCOP [5]	**5,05**	**4,61**	**4,59**	**5,05**	**4,61**	**4,59**
$\eta_{s,h}$	**199,0%**	**181,4%**	**180,6%**	**199,0%**	**181,4%**	**180,6%**

1) EER and COP calculation is based in accordance to EN 14511. 2) The number in parenthesis indicates maximum number of connectable indoor unit in case of 1,5 kW indoor units connection. 3) The number in parenthesis indicates maximum allowed indoor / outdoor capacity ratio in case of 1,5 kW indoor units connection. 4) SEER / SCOP and $\eta_{s,c}$ / $\eta_{s,h}$ are in accordance with ErP test data for U2 type 4 way 90x90 cassette indoor units. 5) SEER / SCOP is calculated based on the seasonal space cooling / heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF.

Minimum environmental impact

Panasonic has designed the LZ2 series in order to minimize the environmental impact of the system. Low GWP refrigerant R32 and highest efficiency levels ensure this through the total operational lifetime.

For the most challenging spaces

The Mini ECOi LZ2 R32 VRF system is the ideal solution to fit into any application thanks to its compact design and long piping lengths.

Technical focus

· Widest range of connectable units in R32 VRF
· Allowing wide range of installations with and without mitigation measures
· Flexible mitigation measures, with Panasonic R32 refrigerant leak detector / alarm to be installed only when required

R32 REFRIGERANT | INVERTER+ | R2 ROTARY COMPRESSOR | BLUEFIN | -10 °C COOLING MODE | -20 °C HEATING MODE | AUTOMATIC RESTART | PANASONIC AC SMART CLOUD | OPTIONAL WI-FI | 5 YEARS COMPRESSOR WARRANTY

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

INTERNET CONTROL: Optional.

Mini ECOi LZ2 Series 8 and 10 HP · R32

Introducing widest range of R32 Mini VRF.

· SEER levels up to 7,6 and SCOP levels up to 4,6 (for 8 HP model)
· Continuous operation at extreme ambient temperatures: -20 °C (heating) to 52 °C (cooling)
· Unique indoors with nanoe™ X, hydroxyl radicals contained in water

Industry 1st 8 HP and 10 HP Mini VRF units with R32

HP			8 HP	10 HP
Outdoor unit			**U-8LZ2E8**	**U-10LZ2E8**
Power supply	Voltage	V	380 - 400 - 415	380 - 400 - 415
	Phase		Three phase	Three phase
	Frequency	Hz	50	50
Cooling capacity		kW	22,4	28,0
EER [1]		W/W	3,84	3,47
Current		A	9,73 - 9,25 - 8,91	13,2 - 12,5 - 12,1
Input power		kW	5,83	8,07
Heating capacity		kW	25,0	28,0
COP [1]		W/W	4,30	4,47
Current		A	9,81 - 9,32 - 8,98	10,5 - 9,93 - 9,57
Input power		kW	5,81	6,26
Starting current		A	1,0	1,0
Maximum current		A	13,7	19,5
Maximum input power		kW	8,21 - 8,64 - 8,96	11,9 - 12,6 - 13,0
Maximum number of connectable indoor units [2]			16	16
External static pressure		Pa	0 ~ 35	0 ~ 35
Air flow		m^3/min	158	167
Sound pressure	Cool	dB(A)	59,0	60,0
	Cool (Silent 1/2/3/4)	dB(A)	56/54/52/50	57/55/53/50
Sound power	Cool	dB(A)	72	74
Dimension	H x W x D	mm	1500 x 980 x 370	1500 x 980 x 370
Net weight		kg	125	126
Piping diameter	Liquid	Inch (mm)	3/8 (9,52)	3/8 (9,52)
	Gas	Inch (mm)	3/4 (19,05)	7/8 (22,22)
Maximum piping length (total)		m	100 (300)	100 (300)
Elevation difference (in / out)		m	50 (OU above) / 40 (OU below)	50 (OU above) / 40 (OU below)
Refrigerant (R32)		kg	4,9	5,1
Maximum allowable indoor / outdoor capacity ratio [3]		%	50 ~ 150 (130)	50 ~ 150 (130)
Operating range	Cool Min ~ Max	°C	-10 ~ 52	-10 ~ 52
	Heat Min ~ Max	°C	-20 ~ 18	-20 ~ 18

ErP data [4]		
SEER [5]	**7,56**	**7,08**
$\eta_{s,c}$	**299,4%**	**280,2%**
SCOP [5]	**4,59**	**4,60**
$\eta_{s,h}$	**180,6%**	**181,0%**

1) EER and COP calculation is based in accordance to EN 14511. 2) The number in parenthesis indicates maximum number of connectable indoor unit in case of 1,5 kW indoor units connection. 3) The number in parenthesis indicates maximum allowed indoor / outdoor capacity ratio in case of 1,5 kW indoor units connection. 4) SEER / SCOP and $\eta_{s,c}$ / $\eta_{s,h}$ are in accordance with ErP test data for F2 type variable static pressure hide-away indoor units. 5) SEER / SCOP is calculated based on the seasonal space cooling / heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF.

Perfect fit for small to medium size projects

8 and 10 HP LZ2 Mini VRF units bring in the total benefits of a VRF system in a smaller application. You can enjoy advanced individual and central VRF control options including the revolutionary Panasonic AC Smart Cloud and AC Service Cloud.

For the most difficult conditions

The Mini ECOi LZ2 series are able to operate at the hardest conditions from -20 °C up to +52 °C providing continuous and efficient, heating and cooling for your space all year long.

Technical focus

· Widest range of connectable units in R32 VRF
· Allowing wide range of installations with and without refrigerant mitigation
· Flexible mitigation measures, with Panasonic R32 refrigerant leak detector / alarm to be installed only when required

R32 REFRIGERANT | INVERTER+ | R2 ROTARY COMPRESSOR | BLUEFIN | -10 °C COOLING MODE | -20 °C HEATING MODE | AUTOMATIC RESTART | PANASONIC AC SMART CLOUD | OPTIONAL WI-FI | 5 YEARS COMPRESSOR WARRANTY

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

INTERNET CONTROL: Optional.

Rating conditions: Cooling indoor 27 °C DB / 19 °C WB. Cooling outdoor 35 °C DB / 24 °C WB. Heating indoor 20 °C DB. Heating outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb).
Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.