

FSV SYSTEMS OVERVIEW


AIR IS LIFE

AIR IS COMFORT

AIR IS ENERGY

QUALITY AIR FOR LIFE

- Please read the Installation Instructions carefully before installing the unit, and the Operating Instructions before using it.
- Specifications are subject to change without prior notice.
- The contents of this catalogue are accurate as of December 2018.
- Due to printing considerations, the actual colours may vary slightly from those shown.
- All graphics are provided merely for the purpose of illustrating a point.

 Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of other refrigerant.

Authorised Dealer

18VRF1201OVERVIEW



FSV
MINI-FSV HEAT PUMP
12.1 - 25.0kW



FSV EX
FSV-EX HEAT PUMP
22.4 - 224.0kW



FSV EX
FSV-EX HEAT RECOVERY
22.4 - 135.0kW

Panasonic Australia Pty. Limited.

Address: 1 Innovation Road, Macquarie Park, NSW 2113
ACN 001 592 187 ABN 83 001 592 187

aircon.panasonic.com.au



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Air Conditioning



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QUALITY AIR FOR LIFE



FSV SYSTEMS

Panasonic's FSV systems are designed for energy savings, high durability, and even operation at extreme ambient temperature.

Panasonic continuously apply advanced technologies to meet the requirements of a variety of diverse situations, constantly contributing to the creation of comfortable living spaces.



2-PIPE FSV-EX HEAT PUMP ME2 Series

Extraordinary energy-saving performance and powerful operation

Space-saving Combination Model

Cooling or Heating Type

Anti-Corrosion Model

- Wide range of systems from 22.4kW to 224.0kW
- Class-leading EER of 4.7 (22.4kW model)
- Industry-leading low noise of 54dB (22.4kW model)
- Cooling operation possible with outdoor temperature as high as 52°C (DB)
- Long piping length (up to 1,000m)
- Up to 64 indoor units connectable
- External static pressure up to 80Pa
- Extended operating range allows heating with outdoor temperatures as low as -25°C (WB)
- Suitable for R22 renewal projects*

*(Please refer to technical document for further details)



High Efficiency Combination Model

Cooling or Heating Type

Anti-Corrosion Model

- Wide range of systems from 22.4kW to 180.0kW
- Higher EER than the Space-saving Combination Model



3-PIPE FSV-EX HEAT RECOVERY MF3 Series

Extraordinary energy-saving for simultaneous cooling and heating operation

Cooling and Heating Simultaneous

- Wide range of systems from 22.4kW to 135.0kW
- Class-leading EER : 4.87 / COP : 5.09 (22.4kW model)
- Long piping length (up to 500m)
- Increased maximum number of connectable indoor units (up to 52)
- External static pressure up to 80Pa
- Cooling operation is possible when outdoor temperature as high as 52°C DB
- Operating range to provide heating at outdoor temperature as low as -20°C WB
- Suitable for R22 renewal projects

(Please refer to technical document for further details)



2-PIPE Mini-FSV HEAT PUMP LE Series

For small-scale commercial and residential use

Cooling or Heating

Anti-Corrosion Model

- Wide range of systems from 12.1kW to 25.0kW
- High external static pressure 35Pa
- Class leading EER: 4.50 (12.1kW model) / 3.80 (22.4kW model)
- Less than 1 metre high (LE2 range)
- Wide operation range: Cooling: -10°C to 46°C DB, Heating at: -20°C to 18°C DB
- Maximum number of connectable indoor units : 13 (22.4/ 28.0kW model)
- Actual piping length: 150m
- Maximum piping length: 150m (12.1/ 14.0/ 15.5kW) / 300m (22.4/ 28.0kW)
- Suitable for R22 renewal projects

(Please refer to technical document for further details)







































































LE2

LE1









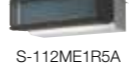
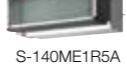
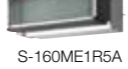








FSV Indoor Units Range

Wide choice of models depending on the indoor requirements

Class	22	28	36	45	56	60	73	90
Capacity	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating
Type	2.2/2.5	2.8/3.2	3.6/4.2	4.5/5.0	5.6/6.3	6.0/7.1	7.3/8.0	9.0/10.0
F2 type ECONAVI Mid Static Ducted	 S-22MF2E5A	 S-28MF2E5A	 S-36MF2E5A	 S-45MF2E5A	 S-56MF2E5A	 S-60MF2E5A	 S-73MF2E5A	 S-90MF2E5A
M1 type ECONAVI Slim Low Static Ducted	 S-22MM1E5A	 S-28MM1E5A	 S-36MM1E5A	 S-45MM1E5A	 S-56MM1E5A			
Z1 type ECONAVI Slim & Narrow Ducted	 S-22MZ1H4A	 S-28MZ1H4A	 S-36MZ1H4A	 S-45MZ1H4A	 S-56MZ1H4A	 S-60MZ1H4A	 S-73MZ1H4A	
E1/E2 type High Static Ducted / Energy Saving High-Fresh Air Ducted*							 S-73ME1E5	
ER1 type High Static Compact Ducted								 S-90ME1R5A
K2 type ECONAVI Wall Mounted	 S-22MK2E5A	 S-28MK2E5A	 S-36MK2E5A	 S-45MK2E5A	 S-56MK2E5A		 S-73MK2E5A	
U2 type ECONAVI ** 4-Way Cassette Panel No. CZ-KPU3	 S-22MU2E5A	 S-28MU2E5A	 S-36MU2E5A	 S-45MU2E5A	 S-56MU2E5A	 S-60MU2E5A	 S-73MU2E5A	 S-90MU2E5A
Y2 type ECONAVI 4-Way Mini Cassette Panel No. CZ-KPY3AW	 S-22MY2E5A	 S-28MY2E5A	 S-36MY2E5A	 S-45MY2E5A	 S-56MY2E5A			
L1 type 2-Way Cassette Panel No. CZ-02KPL2 Panel No. CZ-03KPL2 (Only for S-73ML1E5)	 S-22ML1E5	 S-28ML1E5	 S-36ML1E5	 S-45ML1E5	 S-56ML1E5		 S-73ML1E5	
D1 type 1-Way Cassette Panel No. CZ-KPD2		 S-28MD1E5	 S-36MD1E5	 S-45MD1E5	 S-56MD1E5		 S-73MD1E5	
T2 type ECONAVI Ceiling			 S-36MT2E5A	 S-45MT2E5A	 S-56MT2E5A		 S-73MT2E5A	
P1 type Floor Standing	 S-22MP1E5	 S-28MP1E5	 S-36MP1E5	 S-45MP1E5	 S-56MP1E5		 S-71MP1E5	
R1 type Concealed Floor Standing	 S-22MR1E5	 S-28MR1E5	 S-36MR1E5	 S-45MR1E5	 S-56MR1E5		 S-71MR1E5	

* Only for High Static Ducted (22.4kW & 28.0kW only)
** Only for CZ-KPU3A (ECONAVI Panel)
*** Only for CZ-CNEXU1 (nanoEX Sensor) with CZ-RTC5B

106	112	140	160	180	224	280	Wireless remote control	Type with built-in sensor / Type with separately installed sensor		Functions
Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating				
10.6/11.4	11.2/12.5	14.0/16.0	16.0/18.0	18.0/20.0	22.4/25.0	28.0/31.5				
 S-106MF2E5A		 S-140MF2E5A	 S-160MF2E5A					●		self-diagnosing, Auto fan, Mild dry, Auto restart, Drain pump, DC motor
								●		self-diagnosing, Auto fan, Mild dry, Auto restart, Drain pump, DC motor
								●		self-diagnosing, Auto fan, Mild dry, Auto restart, DC motor
 S-106ME1E5		 S-140ME1E5		 S-180ME2E5	 S-224ME2E5*	 S-280ME2E5*				self-diagnosing, Auto fan, Mild dry (High Static Ducted), Auto restart, DC motor
	 S-112ME1R5A	 S-140ME1R5A	 S-160ME1R5A					●		self-diagnosing, Auto fan, Mild dry, Auto restart
 S-106MK2E5A								●	●	self-diagnosing, Auto fan, Mild dry, Auto restart, Air swing, DC motor, AUTO Auto flap
 S-106MU2E5A		 S-140MU2E5A	 S-160MU2E5A					●	●	self-diagnosing, Auto fan, Mild dry, Auto restart, Air swing, Drain pump, DC motor, AUTO Auto flap
								●	●	self-diagnosing, Auto fan, Mild dry, Auto restart, Air swing, Drain pump, DC motor, AUTO Auto flap
								●	●	self-diagnosing, Auto fan, Mild dry, Auto restart, Air swing, Drain pump, DC motor, AUTO Auto flap
 S-106MT2E5A		 S-140MT2E5A						●	●	self-diagnosing, Auto fan, Mild dry, Auto restart, Air swing, DC motor, AUTO Auto flap
								●		self-diagnosing, Auto fan, Mild dry, Auto restart
								●		self-diagnosing, Auto fan, Mild dry, Auto restart

Self-diagnosing function, Automatic fan operation, DRY Mild dry, AUTO Intelligent auto flap control, Automatic restart function for power failure, Air swing, DP Built-in drain pump, DC motor

FSV Controllers

A wide variety of control options to meet the requirements of different applications.

ECONAVI ECONAVI Sensor CZ-CENSC1



Utilises ECONAVI Sensor and Control Program technologies to detect where energy is normally wasted and self-adjusts cooling power to reduce energy waste.

- Activity detection
- Absence detection

OPERATION SYSTEM	INDIVIDUAL CONTROL SYSTEMS		
Requirements	Advanced operation	Normal operation	Operation from anywhere in the room
External appearance			
Type, model name	Deluxe Wired Remote Controller CZ-RTC5B	Timer Remote Controller (Wired) CZ-RTC4	Wireless Remote Controller CZ-RWSU3 CZ-RWSL2N CZ-RWSC3 CZ-RWSD2 CZ-RWST3N CZ-RWSK2
Built-in thermostat	●	●	●
ECONAVI ON/OFF control	●	●	—
Number of indoor units which can be controlled	1 group, 8 units	1 group, 8 units	1 group, 8 units
Use limitations	· Up to 2 controllers can be connected per group (When using ECONAVI sensor, only one remote controller is possible to connect at indoor unit)	· Up to 2 controllers can be connected per group (When using ECONAVI sensor, only one remote controller is possible to connect at indoor unit)	· Up to 2 controllers can be connected per group.
Function ON/OFF	●	●	●
Mode setting	●	●	●
Fan speed setting	●	●	●
Temperature setting	●	●	●
Air flow direction	●	●	●
Permit/Prohibit switching	—	—	—
Weekly program	●	●	—

All specifications are subject to change without notice.

CENTRALISED CONTROL SYSTEMS			
Operation with various functions from a central location	Only ON/OFF operation from a central location	Simplified load distribution ratio (LDR) for each tenant 10.4 in. touch screen panel colour LCD	Connection with 3rd Party Controller
			Seri-Para I/O unit for outdoor unit
System Controller CZ-64ESMC3	ON/OFF Controller CZ-ANC3	Intelligent Controller CZ-256ESMC3 (CZ-CFUNC2)	Interface Adaptor
—	—	—	Seri-Para I/O unit for each indoor unit
●	—	●	Communication Adaptor
64 groups, maximum 64 units	16 groups, maximum 64 units	64 units x 16 systems, maximum 256 units	LonWorks Interface
· Up to 10 controllers, can be connected to one system. · Main unit/sub unit (1 main unit + 1 sub unit) connection is possible. · Use without remote controller is possible.	· Up to 8 controllers (4 main units + 4 sub units) can be connected to one system. · Use without remote controller is impossible.	· A communication adaptor (CZ-CFUNC2) must be installed for three or more links.	
●	●	●	
●	—	●	
●	—	●	
●	—	●	
●	—	●	
●	●	●	
●	—	●	