

# ECO G 3 Way Multi

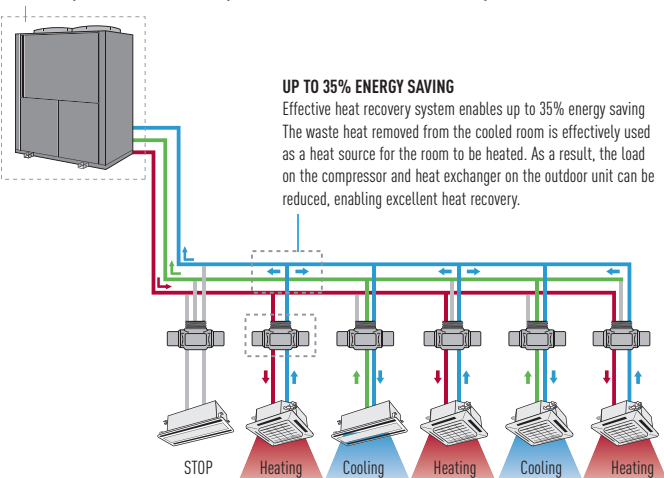
## SYSTEM EXAMPLE

### EXCELLENT PERFORMANCE

Panasonic 3 WAY multi system is capable of simultaneous heating/cooling and individual operation of each indoor unit by only one outdoor unit. As a result, efficient individual air conditioning is possible in buildings having diverse room temperatures.

### IMPROVED MAINTENANCE INTERVALS

The unit only needs to be serviced every 10,000 hours. This is the best in the industry.



— Liquid pipe  
Medium-temperature, medium-pressure liquid pipe

— Suction pipe  
Low-temperature, low-pressure gas pipe

— Discharge pipe  
high-temperature, high-pressure gas pipe



### SOLENOID VALVE KIT CZ-P56HR3, CZ-P160HR3

**KIT-P56HR3** (CZ-P56HR3+CZ-CAPE2), **KIT-P160HR3** (CZ-P160HR3+CZ-CAPE2)

To be fitted on all 'zones' to allow simultaneous heating and cooling.

Up to 36 indoor units are capable of simultaneous heating/cooling operation.

### SOLENOID VALVE CONTROLLER CZ-CAPE2\*.

Must be added to the CZ-P56HR3 OR CZ-P160HR3.

\* For wall mounted S-22MK2E5/S-28MK2E5/S-36MK2E5.

For S-45MK1E5/S-56MK1E5/S-73MK1E5/S-106MK1E5: CZ-CAPE2.

High savings

ECO G

ECO E

## ECO G 3 WAY MULTI

3 WAY HEAT RECOVERY SYSTEM WITH SIMULTANEOUS HEATING & COOLING

The only 3 Way GHP system in Europe, the S Series ECO G 3 Way offers even more performance and outstanding features when you need simultaneous heating and cooling. Now with capacities available from 16 HP to 25 HP, Panasonic offers the greatest choice and flexibility to solve any power problem or site requirement.



OPTIONAL

### TECHNICAL ZOOM

- SIMULTANEOUS HEATING AND COOLING FOR TOTAL CONTROL
- REDUCED GAS CONSUMPTION BY MILLER-CYCLE ENGINE
- REDUCED ELECTRICAL POWER CONSUMPTION BY USING DC MOTORS
- NEW LIGHTWEIGHT DESIGN
- PART LOAD EFFICIENCIES INCREASED
- CONNECTABILITY INCREASED TO UP TO 24 INDOOR UNITS
- 145 m MAXIMUM ALLOWABLE PIPING LENGTH, L1

HP	16 HP		20 HP		25 HP	
MODEL NAME	U-16GF2E5		U-20GF2E5		U-25GF2E5	
Cooling capacity	kW	45.00	56.00		71.00	
Cooling power input	kW	0.71	1.02		1.33	
EER		1.48	1.40		1.15	
Cooling gas consumption	kW	29.7	39.1		60.4	
Heating capacity	STD	kW	50.00		63.00	
	Low temp*	kW	53.00		67.00	
Heating power input	kW	0.60	0.64		0.83	
COP		1.51	1.46		1.48	
Heating gas consumption	STD	kW	32.5		42.5	
	Low	kW	41.5		56.4	
COP	Average		1.50		1.43	
Size	H x W x D	mm	2273 x 1650 x 1000 (+80)		2273 x 1650 x 1000 (+80)	
Weight	Kg	775	775		805	
Starter amperes	A	30	30		30	
Pipe	Gas	Inches (mm)	1 1/8 (Ø 28.58)		1 1/8 (Ø 28.58)	
	Liquid	Inches (mm)	3/4 (Ø 19.05)		3/4 (Ø 19.05)	
	Discharge	Inches (mm)	7/8 (Ø 22.22)		1 (Ø 25.40)	
	Fuel gas		R3/4		R3/4	
	Exhaust drain port	mm	Ø 25		Ø 25	
Operation sound	dB(A)	57	58		62	
Indoor/outdoor capacity ratio		50-200% <sup>1</sup>	50-200% <sup>1</sup>		50-200% <sup>1</sup>	
Number of connected indoor units*		24	24		24	

\*Low temp condition: outdoor temperature 2 °C.  
<sup>1</sup> Indoor unit can be connected to up to 16 kW model (model size 60)

Specifications subject to change without notice.

GLOBAL REMARKS	Rated conditions:	Cooling	Heating (standard)	Heating (low temp.)
	Indoor air temperature	27 °C DB / 19°C WB	20 °C DB	20 °C DB / 15 °C WB or less
	Outdoor air temperature	35 °C DB	7 °C DB / 6 °C WB	2 °C DB / 1 °C WB

Cooling and heating capacities in the tables are determined under the test conditions of JIS B 8627. Effective heating requires that the outdoor air intake temperature be at least -20 °C DB or -21 °C WB.  
 DB: Dry Bulb; WB: Wet Bulb  
 - Gas consumption is the total [high] calorific value standard.  
 - Outdoor unit operating sound is measured 1 meter from the front and 1.5 meters above the floor (in an anechoic environment). Actual installations may have larger values due to ambient noise and reflections.  
 - Values in parentheses ( ) for refrigerant gas and liquid types are those when the maximum piping length exceeds 90 meters (equivalent length). (Reducers are available locally.)  
 - Specifications are subject to change without notice.  
 - Hot water heating capacity is applicable during cooling operation as in Note 1.  
 - The maximum water temperature that can be obtained is 75 °C. Water heating performance and temperature vary with the air conditioning load. Because the hot water heating system uses waste heat from the engine, which runs the air conditioning, its ability to heat water is not guaranteed.

GHP SERVICE KITS MODEL NAME	CZ-PSK560S
Outdoor unit reference	U-16GF2E5 / U-20GF2E5 / U-25GF2E5
MATERIAL INCLUDED ON THE KIT	
Oil Filter	1
Air Cleaner Element (Air Filter)	1
Plug	4
V BELT (for compressor)	1
V Belt (for generator)	-
Oil Strainer	1
Drain Filter Packing	1



**More Technical Zoom**

- Diversity ratio 50–200%
- Extended pipe runs (total 780 m)
- Quiet mode offers a further 2 dB(A) reduction
- Full heating capacity down to -21 °C
- No defrost cycle
- Option of using LPG as a power supply (increases flexibility and avoids problems of potential site restrictions in the future. The purer fuel is also excellent for further reductions in CO<sub>2</sub> emissions)
- 10,000 run hours between engine service intervals (equivalent to one maintenance every 3.2 years\*)

- Assuming 3,120 running hours per year - 12 h x 5 days x 52 weeks

**Additional parts**



**Solenoid valve controller**

3-Pipe control PCB CZ-CAPE2\*.  
Must be added to the CZ-P56HR3 OR CZ-P160HR3.  
KIT-P56HR3 (CZ-P56HR3+CZ-CAPE2), KIT-P160HR3 (CZ-P160HR3+CZ-CAPEK2)  
\* For wall mounted S-22MK2E5/S-28MK2E5/S-36MK2E5.  
For S-45MK1E5/S-56MK1E5/S-73MK1E5/S-106MK1E5: CZ-CAPEK2.



**Solenoid valve kit**

CZ-P56HR3 (up to 5.6 kW) CZ-P160HR3 (from 5.7 to 16 kW)  
KIT-P56HR3 (CZ-P56HR3+CZ-CAPE2), KIT-P160HR3 (CZ-P160HR3+CZ-CAPEK2)  
\* For conference rooms and other locations where low noise is required, pay attention to the installation location and install in a corridor etc.

	45.0 kW	56.0-71.0 kW
1 Suction refrigerant pipe	Ø 28.58	Ø 25.4
2 Discharge refrigerant pipe	Ø 22.22	Ø 25.4
3 Liquid refrigerant pipe	19.05	
4 Exhaust gas drain port	HOSE OD Ø 25 (accessory)	
5 Electrical power supply port	Ø 28	
6 Inter-unit cable port	Ø 28	
7 Fuel gas port	R3/4	
8 Condensation drain opening	Ø 20	
9 Rain and condensation outlet		
10 Engine exhaust outlet		
11 Suspension holes 4-Ø 20x30		
12 Anchor holes 4-Ø 22x30		
13 Segmented display		
14 Coolant intake (top)		
15 Vent		

