

ECO G AND ECO G MULTI



ECO G and ECO G Multi 2-Pipe for Heat Pump Applications

The S Series 2-Pipe not only offers improved performance but also increased flexibility. Now available as multi-systems, many combinations are possible, from 16 HP to 50 HP, allowing for more power and enabling accurate matching of a system building load. Additional new features include part load engine management and compressor run hour equalisation.

Technical focus

- Reduced gas consumption by Miller-cycle engine
- Reduced electrical power consumption by using DC Motors
- Lightweight design reduces weight
- Capacity ratio 50-130% (single models only)

- Quiet mode offers a further 2 dB(A) reduction
- Part load efficiencies increased
- Connectivity increased - now up to 48 indoor units
- Multi-systems with combinations from 13 HP up to 50 HP
- 10,000 run hours between engine service intervals (equivalent to one maintenance every 3,2 years*)
- 200 m maximum allowable piping length (L1)
- Extended pipe runs (total 780 m)
- Full heating capacity down to -20°C
- No defrost cycle

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

HP		16 HP	20 HP	25 HP	30 HP	32 HP	36 HP*	40 HP*	45 HP*	50 HP
Model		U-16GE2E5	U-20GE2E5	U-25GE2E5	U-30GE2E5	U-16GE2E5 U-16GE2E5	U-16GE2E5 U-20GE2E5	U-20GE2E5 U-20GE2E5	U-20GE2E5 U-25GE2E5	U-25GE2E5 U-25GE2E5
Cooling capacity	kW	45.00	56.00	71.00	85.00	90.00	101.00	112.00	127.00	142.00
Hot water (cooling mode)	kW	15.00	20.00	30.00	30.00	30.00	35.00	40.00	50.00	60.00
Power Input	kW	0.71	1.02	1.33	1.70	1.42	1.73	2.04	2.35	2.66
EER (Calorific Value) ¹	High / Low	1.48 / 1.64	1.40 / 1.55	1.15 / 1.28	1.22 / 1.35	1.48 / 1.64	1.43 / 1.59	1.40 / 1.55	1.25 / 1.39	1.15 / 1.28
Max COP (inc hot water)		1.97	1.89	1.64	1.65	1.97	1.93	1.89	1.74	1.64
Gas consumption	kW	29.70	39.10	60.40	67.9	59.40	68.80	78.20	99.50	120.80
Heating capacity	STD / Low temperature ²	kW	50.00 / 53.00	63.00 / 67.00	80.00 / 78.00	95.00 / 90.00	100.00 / 106.00	113.00 / 120.00	126.00 / 134.00	143.00 / 145.00
Power Input	kW	0.60	0.64	0.83	1.45	1.20	1.24	1.28	1.47	1.66
COP (Calorific Value) ¹	High / Low	W/W	1.51 / 1.68	1.46 / 1.62	1.48 / 1.64	1.37 / 1.52	1.51 / 1.68	1.48 / 1.64	1.46 / 1.62	1.47 / 1.63
Gas consumption	STD	kW	32.50	42.50	53.20	68.10	65.00	75.00	85.00	95.70
	Low temperature ²	kW	41.50	56.40	62.30	78.00	83.00	97.90	112.80	118.70
COP	Average		1.50	1.43	1.32	1.29	1.50	1.46	1.43	1.36
Starter amperes	A					30				
Sound pressure level	dB(A)	57	58	62	63	60	61	61	63	65
Dimensions	Height	mm				2,273				
	Width	mm	1,650	1,650	1,650	2,026	1,650+100+1,650	1,650+100+1,650	1,650+100+1,650	1,650+100+1,650
	Depth	mm				1,000 (+80)				
Net weight	kg	755	780	810	840	755 + 775	755 + 780	780 + 780	780 + 810	810 + 810
Pipe Connections	Gas	inch				1 1/2				
	Liquid	inch	1/2	5/8	3/4	3/4	3/4	3/4	3/4	3/4
	Fuel gas					R3/4 (bolt thread)				
	Exhaust drain port	mm				25 rubber hose				
Indoor/outdoor capacity ratio						50-130 %				
Number of connections indoor			24		32		48			

Service kits model	Kit CZ-PSK560SP	Service kits model	Kit CZ-PSK850S
Outdoor unit reference	U-16GE2E5 / U-20GE2E5 / U-25GE2E5	Outdoor unit reference	U-30GE2E5
Material included on the kit		Material included on the kit	
Oil filter	1	Oil Filter	1
Air Cleaner Element (Air Filter)	1	Air Cleaner Element (Air Filter)	1
Spark plug	4	Spark plug	4
V Belt (for compressor)	1	V BELT (for compressor)	1
V Belt (for generator)	-	V Belt (for generator)	-
Oil absorption mats	1	Oil Strainer	1
Drain filter packing	1	Drain Filter Packing	1

Rating Conditions: Cooling Indoor 27°C DB / 19°C WB. Cooling Outdoor 35°C DB. Heating (standard) Indoor 20°C DB. Heating (standard) Outdoor 7°C DB / 6°C WB. Heating (low temp.) Indoor 20°C DB / 15°C WB or less. Heating (low temp.) Outdoor 2°C DB / 1°C WB. DB: Dry Bulb; WB: Wet Bulb

* In these combinations, GE2E5 is able to connect to a W-multi system Specifications subject to change without notice instead of a GE2E5.

1) Referred to Natural Gas (HCV 37.78 MJ/Nm³ or 55.56 MJ/kg; LCV 34.00 MJ/Nm³ or 50.00 MJ/kg). 2) Low temperature condition: outdoor temperature 2°C. Specifications subject to change without notice.

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.

• 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. • Specifications are subject to change without notice. • Hot water heating capacity is applicable during cooling operation. • 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.

