



THERMOTECHNOLOGY

TRADITION · INNOVATION · QUALITY

CIRKONOVA HEATING AND COMBINED HOT WATER BOILERS

CIRKONOVA	Unit	Heaters with chimney				Heaters with fan				Combi instantaneous boilers		Combi instantaneous boilers with fan	
		C-12HE	C-18HE	C-24HE	C-36HE	ZC-12HE	ZC-18HE	ZC-24HE	ZC-36HE				
		CK-12HE-T	CK-18HE-T	CK-24HE-T	CK-36HE-T	ZCK-12HE-T	ZCK-18HE-T	ZCK-24HE-T	ZCK-36HE-T	CK-24HE	CK-36HE	ZCK-24HE	ZCK-36HE
Nominal heat load	KW	13,2	19,9	26,5	38,3	13,0	19,4	27,0	37,5	26,3	38,3	27,0	37,5
Nominal heat performance	KW	12,0	18,0	24,0	35,0	12,0	18,0	24,3	35,0	24,0	35,0	24,3	35,0
Efficiency	%	91,2	90,4	90,4	91,3	92,4	92,6	90,0	93,4	91,2	91,3	90,0	93,4
Minimal heat performance	KW	4,8	7,2	12,0	14,0	7,2	10,8	12,1	14,0	12,0	14,0	12,1	14,0
Nominal gas consumption													
Natural gas G20	m³/h	1,4	2,11	2,07	4,05	1,38	2,05	2,86	3,97	2,78	4,05	2,86	3,97
LPG G30	kg/h	1,03	1,56	2,2	3,0	1,02	1,52	2,11	2,93	2,06	3,0	2,11	2,93
Nominal gas pressure													
Natural gas G20	mbar	25	25	25	25	25	25	25	25	25	25	25	25
LPG G30	mbar	30	30	30	30	30	30	30	30	30	30	30	30
Heating													
Water temperature regulation range	°C	30-80	30-80	30-80	30-80	30-80	30-80	30-80	30-80	30-80	30-80	30-80	30-80
Boiler water volume	l	1,1	1,1	1,2	1,4	1,1	1,1	1,2	1,4	1,2	1,4	1,2	1,4
Closed expansion tank water volume	l	6	6	10	10	6	6	10	10	10	10	10	10
Heating circuit min./max. Pressure	bar	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5	0,1/2,5
Domestic hot water													
DHW temperature regulation range	°C	35-65	35-65	35-65	35-65	35-65	35-65	35-65	35-65	35-65	35-65	35-65	35-65
Water generation in instantaneous system Δt= 25 °C¹	l/min	-	-	-	-	-	-	-	-	13	20	13	21
Water quantity Δt = 30 °C raise, 10 min¹	l	70,6	103,0	110,0	180,0	73,0	107,5	110,0	185,0	110,0	180,0	110,0	185,0
Minimum water quantity¹	l/min	2,7	4,1	3,5	3,5	2,7	4,1	3,5	3,5	3,5	3,5	3,5	3,5
Min. and max. water pressure¹	bar	0,1/10,0	0,1/10,0	0,1/10,0	0,1/10,0	0,1/10,0	0,1/10,0	0,5/10,0	0,1/10,0	0,5/10,0	0,1/10,0	0,1/10,0	0,1/10,0
Concentric gas flue drainage													
Option 1 – Diameter	mm	-	-	-	-	60/100	60/100	60/100	60/100	-	-	60/100	60/100
Max. length vertical/horizontal allowed	m	-	-	-	-	5	5	10	6	-	-	10	6
Option 2 – Diameter	mm	-	-	-	-	80/125	80/125	80/125	80/125	-	-	80/125	80/125
Max. length vertical/horizontal allowed	m	-	-	-	-	20	20	20	20	-	-	20	20
Distributed gas flue drainage													
Diameter	mm	-	-	-	-	80/80	80/80	80/80	80/80	-	-	80/80	80/80
Max. total length allowed	m	-	-	-	-	30	30	25	25	-	-	25	25
Chimney connection													
Diameter	mm	ø110	ø130²	ø130	ø150	-	-	-	-	ø130	ø150	-	-
Electric supply													
Network power/frequency	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Power input	W	50	50	85	75	90	90	125	167	85	75	126	167
Electric protection	IP	45	45	44	44	44	44	45	44	44	44	45	44
Connection													
Heating	Inch	3/4"	3/4"	3/4"	1"	3/4"	3/4"	3/4"	1"	3/4"	1"	3/4"	1"
DHW¹	Inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1/2"	3/4"	1/2"	3/4"
Gas	Inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Size, weight													
Height	mm	732	732	746	998	732	732	746	796	746	998	746	796
Depth	mm	350	350	363	385	350	350	363	385	363	385	363	385
Width	mm	380	380	450	630	380	380	450	655	450	630	450	655
Weight [(Z)C-.../(Z)CK-...-T]	kg	27/28	28/29	31/32	49/50	33/28	34,5/35,5	33/34	52/53	34	52	43	53

CIRKO	Unit	C-24H	ZC-18H-S
Nominal heat load	kW	27,3	19,6
Nominal heat performance	kW	24	17,5
Efficiency	%	88,0	89,5
Minimum heat performance	kW	12,0	8,75
Nominal gas consumption			
Natural gas	m³/h	2,86	2,05
LPG	kg/h	2,14	1,53
Nominal gas pressure			
Natural gas	mbar	25	25
LPG	mbar	30	30
Heating			
Water temperature regulation range	°C	50-80	50-80
Heating circuit min./max. pressure	bar	0,2 / 2,5	0,2 / 2,5
Chimney connection			
Diameter	mm	ø 130	Parapet
Electric supply			
Network power/frequency	V/Hz	230/50	230/50
Power input	W	110	110
Electric protection	IP	45	45
Connection			
Heating	inch	3/4"	3/4"
Gas	inch	1/2"	1/2"
Size, weight			
Height	mm	800	907
Depth	mm	275	255
Width	mm	430	410
Weight	kg	22	34

CIRKONOVA LEGEND:

- C** Circo boiler
 - Z** Closed combustion (turbo) type
 - H** Honeywell gas valve
 - E** Electronic ignition, ionization flame guard
 - T** Boiler with built-in valve (indirect storage tank)
 - K** Instantaneous combi, with built-in KNV heat exchanger
- ¹ CK...HE-T, ZCK...HE-T, CK and ZCK types
² Chimney narrowing permission for ø110 mm

CIRKO LEGEND:

- C** Heater with chimney
- ZC** Closed combustion heater with parapet
- H** Honeywell gas valve

YOUR DEALER:



CIRKONOVA HEATING AND COMBINED HOT WATER BOILERS

The operation method of these boilers is similar to the tankless water heaters. The heating of the water is done instantly during circulation by a valve. Due to the small water space these heaters are light and compact. There is no need to set-up a separate boiler house or any other room. The device can easily be mounted on the wall.

These conventional heaters with modern design are very popular among the users. They have a number of advantages in case of replacement of a boiler, due to the fact that the Cirkonova devices hydraulically fit a less modern heating system as well. Thanks to the competitive price, the replacement of the older device is more affordable. The user can avoid any reconstruction of the system; however the central heating and hot water supply can be updated with a twenty-first century device.

TECHNICAL DATA

- Honeywell gas valve and electronics
- Grundfos pump
- FÉG SPIREC heat exchanger for domestic hot water (DHW) generation
- Ionization flame guard, electronic ignition
- Constant flame modulation
- Fully electronic regulation, digital signaling
- Heating and hot water regulation with DHW priority

- Microprocessor controller, digital temperature and error code display
- Chimney and closed combustion (turbo) types
- **Optionally LPG type available**
- **Can be connected to open systems**
- Built-in external temperature regulation
- Built-in expansion tank, security pressure relief valve, automatic vent
- DHW generation with temperature monitoring to minimize scaling (instantaneous combi)

- Controllable user and regulation parameters
- Protection features (anti-bloc and anti-freeze protection)
- IP45 electrical protection
- Two-way communication due to the modern digital technology operating in OPEN-THERM bus system

CIRKONOVA BOILERS

are available in heating only open vent or closed combustion (turbo) versions with 12, 18, 24 and 36 kW performance, or 24 and 36 kW performance instantaneous combi versions.

The Cirkonova gas boiler is equipped with an external temperature sensing control. The temperature dependent regulation makes a heat technically optimal heated building and heating system operation possible.

Direct heat water regulation is available during DHW generation, which guarantees a $\pm 1^\circ\text{C}$ hot water temperature, even when the amount of water flow changes during usage (within operational range).

In the Cirkonova boilers the heat exchanger exposed to high flue temperature is engineered for long term. By adequate maintenance and normal operation the water heaters are designed to run 15-20 years, with low service and fixture costs.

The boilers are equipped with the appliances needed for running a heating and domestic hot water supply system, like expansion tank, pressure relief valve, automatic vent, etc.

To boilers marked „T“ a storage tank can be attached.

The built in three-way valve ensures the switch to the domestic hot water generation by the indirect tank.

All boilers can be regulated down to the 50 percent of the nominal performance.



ZCK-24HE

CIRKO PILOT FLAME BOILERS

The most simple and cheapest way of providing a comfortable heating is by installing a central heating boiler with constant pilot flame. These boilers are available in 24 kW open vent version with chimney, and 18 kW closed combustion, natural draft type with parapet.

The pilot flame central heating boiler can be mounted to any space where the relevant security measures make it possible, and where uninterrupted air supply can be ensured. The heat of the pilot flame is beneficial for the warm keeping of the heater's heat exchanger and chimney for winter operation, the condensation can be avoided, and the chimney corrosion can be minimised.

The firebox of the closed combustion parapet pilot flame central heaters is not in direct air connection with the airspace where it will be installed. The air supply from the outdoors occurs in a closed system. The flue gas drainage does not need any energy source (electricity).

The boilers are equipped with microprocessor controller, so beyond the known durability and long lifetime other micro electrical features are also available, from digital temperature display to anti-freeze protection.

TECHNICAL DATA

- C-24H: open vent, chimney type
- ZC-18H: closed combustion, without chimney, with parapet
- Microprocessor control
- Thermo-electric flame guard
- Flue gas back-flow protection (C-24 H)
- Digital temperature display
- Automatic freeze protection
- IP45 electrical protection

SPIREC KNV HEAT EXCHANGER IN CIRKONOVA BOILERS

