

C230 ECO-C340-C640

FLOOR-STANDING GAS CONDENSING BOILER

CONDENSATION TECHNOLOGY FOR COMMERCIAL APPLICATIONS

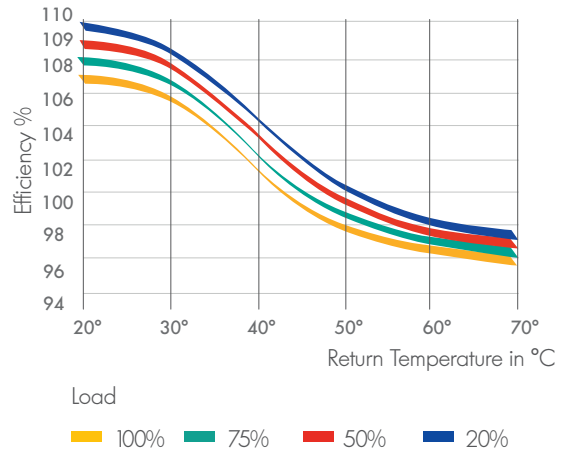




ENERGY SAVINGS AND ENVIRONMENT ARE NOW THE TOP PRIORITIES

Whether in collective housing, administrative, office or industrial buildings, the condensation principle enables substantial **energy savings of up to 40%**. It also offers environmental benefits, with significant reductions in NO_x and CO₂ emissions.

SIMPLE, ECONOMICAL



AND EASY TO MAINTAIN FOR OPTIMAL SUSTAINABILITY AND DURABILITY.

- **Highly durable** thanks to the cast aluminium/silicon alloy heating body, which offers high resistance to corrosion and thermal shock.
- **Easy to maintain:** a self-cleaning heating exchanger with condensate run-off, quick access to all components via removable hatches and panels.
- **Reduction in pollutant** emissions thanks to total premix burners.
- Surface combustion and **very low modulation** minimise start-ups and shutdowns, which cause pollutant emissions.

ULTRA-ADAPTABLE



THEY ARE COMPATIBLE WITH A WIDE RANGE OF CONFIGURATIONS AND THEIR SPECIFICATIONS MEAN THEY CAN BE ADAPTED TO ANY INSTALLATION REQUIREMENTS.

- A broad output range from 18 to 1303 kW or higher for cascade type installations.
- A large modulation capacity enables heat production to be fine-tuned to meet the installation requirements,
- These highly compact units can be installed in both new and old buildings where access to boiler rooms can be a problem.
- They are extremely quiet and conform to applicable acoustic standards, specifically in residential buildings,
- With no return temperature constraints, they enable simple hydraulic installation with maximum use of condensation,
- The flue system offers multiple connection options, with forced flue (in line with regulations) or chimney with small diameter ducts.



Condensation



Light



Compact



Easy
maintenance



Silent

QUICK AND EASY TO SET UP



THESE NEW CONDENSING BOILERS ARE EASY TO HANDLE, INSTALL AND START-UP THANKS TO THEIR INGENUOUS EQUIPMENT:

- They are extremely light for their output and easy to handle (only 2 people required),
- With ergonomic handles and/or castor wheels, the C 340 and C 640 models feature a clever pallet lowering system in which the top part of the packaging serves as a pallet lowering ramp when the boiler is being unpacked,
- Delivered fully assembled (body, casing, control system, etc.), they can be quickly installed and connected,
- Their control systems are equipped with colour-coded connectors for extremely simple, foolproof electrical connection.
- Delivered preset and tested warm in the factory, they are quick and easy to start up.
- The boiler components can be easily dismantled and refitted to facilitate installation in confined boiler rooms.

FOR OPTIMAL CONDENSATION

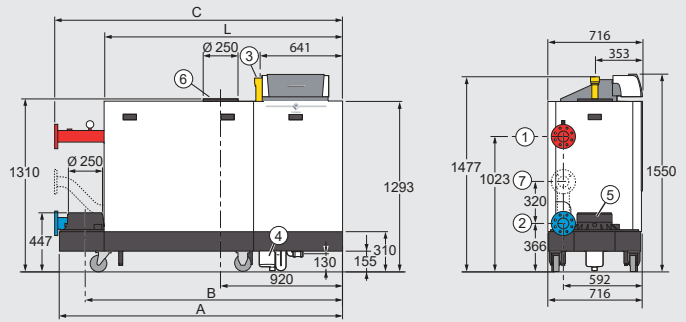


+ **security:** the cascade-configured controllers enable the flow to be switched and guaranteed, even if one of the pumps fails,

+ **improved performance:** thanks to their large Delta T, the C340/C640 models offer a high level up to 40K of DHW production performance as FWPC,

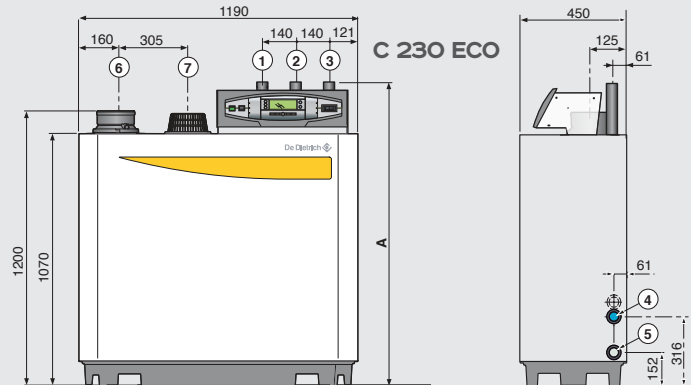
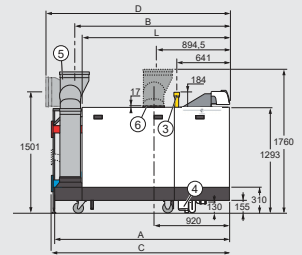
+ **economical:** the highly responsive boilers guarantee ever greater savings by precisely tracking demand.

C 340

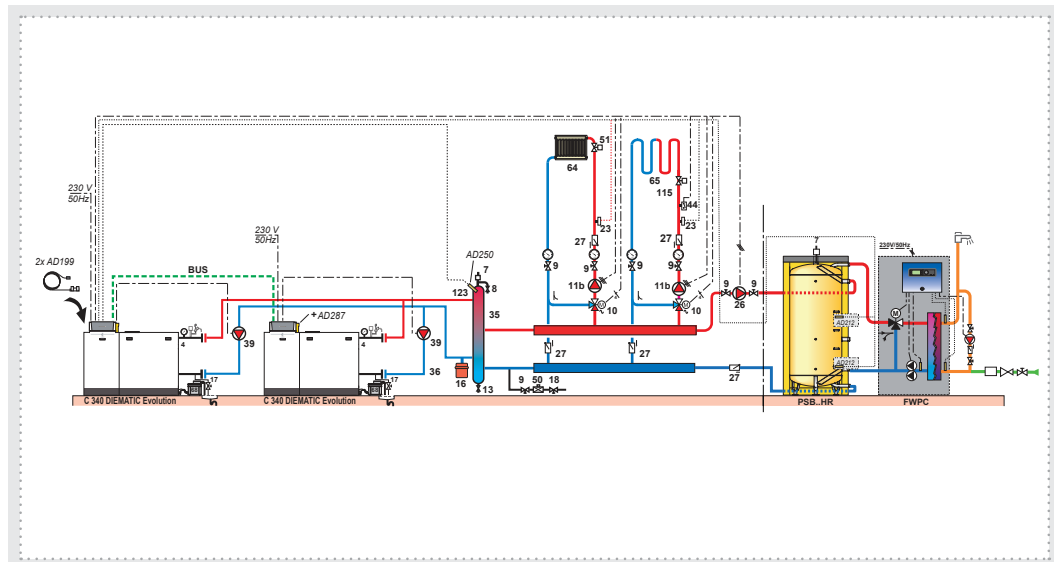


- ① Heating flow, flange DN 80 (DIN 2576)
- ② Heating return, flange DN 80 (DIN 2576)
- ③ Gas inlet G 2 $\frac{1}{2}$ (topped)
- ④ Condensates run-off, siphon provided, for PVC pipe \varnothing 32mm
- ⑤ Flue gas nozzle \varnothing 250mm
- ⑥ Combustive air inlet \varnothing 250mm, collector air inlet \varnothing 350mm optional
- ⑦ Second return nozzle, flange DN 65 (DIN 2576) (optional)

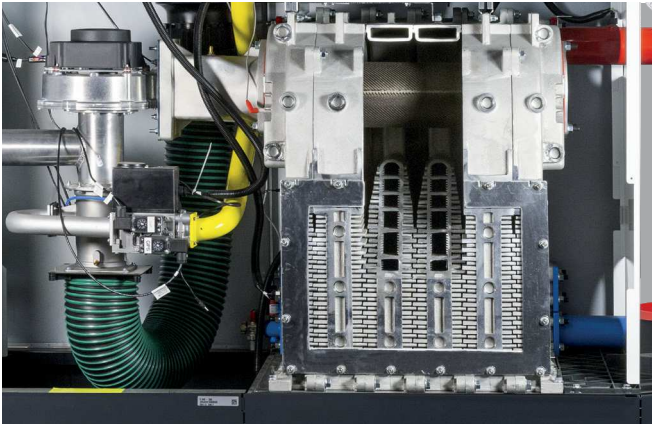
C ...	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)
280	1833	1635	1862		1490
350	1833	1635	1862		1490
430	1833	1635	1862		1490
500	2142	1944	2172		1800
570	2142	1944	2172		1800
640-560	1833	1582	1862	1962	1490
640-700	1833	1582	1862	1962	1490
640-860	1833	1582	1862	1962	1490
640-1000	2142	1892	2172	2271	1800
640-1140	2142	1892	2172	2271	1800
640-1300	2142	1892	2172	2271	1800
650	2142	1944	2172		1800



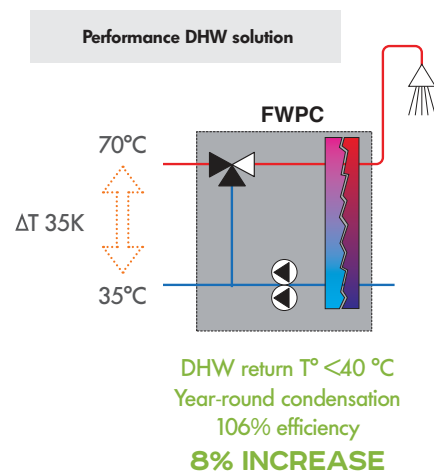
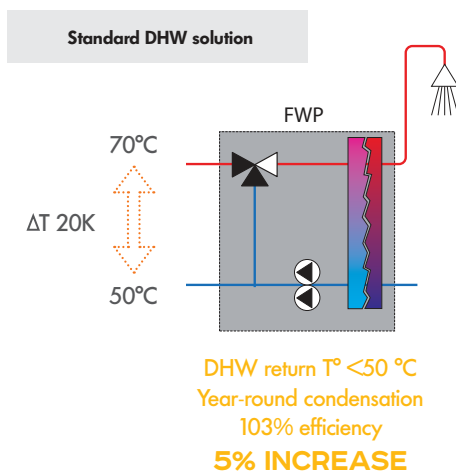
- ① Flow
- ② Return
- ③ Gas Inlet R 1 1/4
- ④ Filling and drain tap/ Connection for second return R 1 1/4
- ⑤ Condensation drain, siphon provided for PVC pipe \varnothing 32 mm ext.
- ⑥ Flue gas nozzle \varnothing 150 mm
- ⑦ Combustive air inlet



A HIGH-PERFORMANCE BOILER



- New heating body design to obtain a Delta T of 40K for C 340/C 640.
- Improved self-cleaning capability for the exchanger on the flue gas side.
- 5% more efficient thanks to the compatibility with very high-performance DHW solutions (FWPC type)
- Highly responsive boiler thanks to rapid warm-up
- Heat exchanger with insulation for more efficiency



THE NEW DIEMATIC EVOLUTION CONTROL SYSTEM PLATFORM



DIEMATIC EVOLUTION



SIMPLE AND INTUITIVE

- Factory-installed control system.
- Intuitive navigation: new ergonomic controls.
- Optimal legibility: high-resolution colour screen with clear text.
- At-a-glance information: overview on the home screen, rotary selector knob.

ADVANCED FUNCTIONS

- Situation analysis, simple, clear view for day-to-day use.
- Installer reserved access.
- Integrated troubleshooting system.
- Multi-zone heating management as standard for added comfort.
- As standard, to control 2 direct or mixed circuits and (+1 optional) and 1 DHW circuit.
- Cascade control with up to 8x C340 or 4x C640.
- 0-10 V control with 3 feedback functions as standard.
- Integrated Bluetooth board for Service Tool.
- Optional remote control with Modbus RTU RS485 to connect the boiler to a BMS.

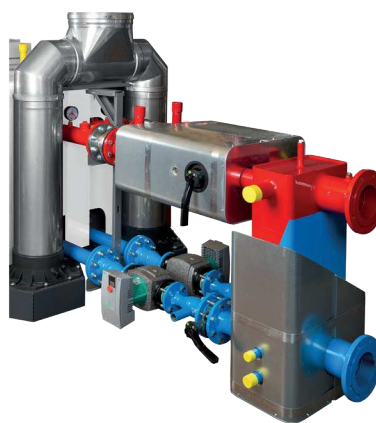
OPTIMAL SYSTEM SOLUTIONS FOR MAXIMUM ENERGY SAVINGS

DE DIETRICH HAS DEVELOPPED A RANGE OF BOILER ROOM EQUIPMENT TO SECURE
AND FUTURE-PROOF SYSTEMS UP TO 1300 KW

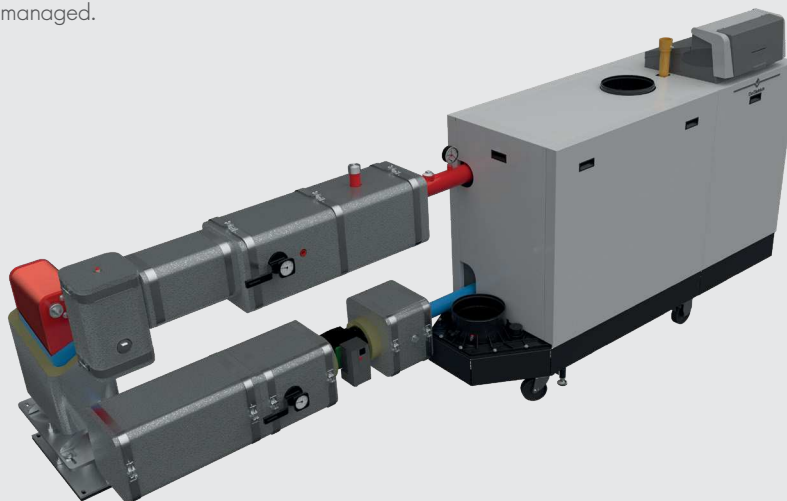
HYDRAULIC ISOLATION SETS

Boiler + Low loss header

For easier installation balancing



Boiler with plate heat exchanger kit.
When the water quality is not managed.



Best in Class Spare part center

A BOILER RENOWNED FOR ITS PERFORMANCE



Ultra-compact and lightweight

For easy set-up:
0.54 m² footprint for 217 kW
to 1.53 m² for 651 kW
188 kg for 217 kW to 568 kg for 651 kW

Excellent environmental performance

NO_x emissions below 60 mg/kWh
Sound level below 60 dB(A) for 573 kW

Large modulation capacity

Modulation from 15 to 100% (for the C640) for
optimal fine-tuning of the heat production to the
installation requirements.

CONDENSATION IS STATE-OF-THE-ART BOILER TECHNOLOGY

ALUMINIUM-SILICON: THE PERFECT COMPOSITION FOR OPTIMISED GENERATOR OPERATION

- **Robust chemical resistance:** aluminium-silicon is resistant to acid condensates from flue gases.
- **High corrosion resistance** thanks to surface self passivation.
- **Aluminium is a very good heat conductor** (5 times greater than steel).
- **No return temperature requirements:** optimal heat exchange.
- **High generator responsiveness** thanks to reduced water volume.
- **Eco-friendly material:** infinitely recyclable.

C230 ECO-C340-C640

GAS CONDENSING BOILER C 230 ECO (modulation from 18% to 100%)

models		85	130	170	210	
Max. nominal output at 50/30°C (Pn) (natural gas H)*	KW		93	129	179	217
Efficiency in % PCI	%		97,4	97,5	97,5	97,6
at load % Pn	{ 100% Pn at average temp. 70°C 100% Pn at return temp. 30°C 30% Pn at return temp. 30°C	%	104,3	105,2	105,2	105,7
and water temp. °C		%	107,9	108,3	108,3	108,4
Max. flue gas temperature at 40/30°C	°C		43	43	43	43
Flue gas pressure available at boiler outlet	Pa		130	130	130	130
Boiler foot print	m ²		0,54	0,54	0,54	0,54
Empty net weight	kg		115	135	165	188

* The boiler can also run with propan

GAS CONDENSING BOILER C 340 (modulation from 20% to 100%)

models		280	350	430	500	570	650
Max. nominal output at 50/30°C (Pn) (natural gas H)*	KW	279	350	425	497	574	652
Efficiency in % PCI	%	98	98,1	98,2	98,3	98,4	98,5
at load % Pn	{ 100% Pn at average temp. 70°C 100% Pn at return temp. 30°C 30% Pn at return temp. 30°C	%	104,8	105,2	106	106,4	106,8
and water temp. °C		%	109,2	109	108,8	108,6	108,3
Max. flue gas temperature at 40/30°C	°C	60	61	64	63	66	65
Flue gas pressure available at boiler outlet	Pa	130	120	130	150	150	150
Boiler foot print	m ²	1,31	1,31	1,31	1,53	1,53	1,53
Empty net weight	kg	366	400	435	497	533	570

* The boiler can also run with propan

GAS CONDENSING BOILER C 640 (modulation from 15% to 100%)

models		560	700	860	1000	1140	1300
Max. nominal output at 50/30°C (Pn) (natural gas H)*	KW	558	701	849	994	1147	1303
Efficiency in % PCI	%	98	98,1	98,2	98,3	98,4	98,5
at load % Pn	{ 100% Pn at average temp. 70°C 100% Pn at return temp. 30°C 30% Pn at return temp. 30°C	%	104,8	105,2	106	106,4	106,8
and water temp. °C		%	109,2	109	108,8	108,6	108,3
Max. flue gas temperature at 40/30°C	°C	60	61	64	63	66	65
Flue gas pressure available at boiler outlet	Pa	130	120	130	150	150	150
Boiler foot print	m ²	2,68	2,68	2,68	3,13	3,13	3,13
Empty net weight	kg	711	775	841	961	1029	1099

* The boiler can also run with propan



DE DIETRICH, A FRENCH QUALITY MARK SINCE 1684

For 3 centuries, De Dietrich has based its success on real values: quality, reliability, sustainability. For the sake of the environment, and your comfort, De Dietrich has incorporated fully all the renewable energies available from multiple, planet-protecting sources. So heating appliances With the De Dietrich brand are at the cutting edge of innovation, made to exceptional standards of quality and durability through the involvement of the whole workforce since more than 300 years.



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