MPX

WALL-HUNG GAS CONDENSING BOILERS

- MPX 24 Compact: from 3.7 to 26.1 kW, for heating only
- MPX 28/33 BIC: from 5.1 to 30.6 kW, for heating and domestic hot water production by integrated calorifier
- MPX 20/24 MI Compact, 24/28 MI Compact, 28/33 MI Compact: from 3.7 to 30.6 kW for heating and instantaneous domestic hot water production

MPX 24 Compact

MPX 20/24 MI Compact
MPX 24/28 MI Compact
MPX 28/33 MI Compact

MPX 28/33 BIC

MPX 24 Compact

MPX 20/24 MI, 24/28 MI, 28/33 MI Compact
MPX 28/33 BIC

Condensing

Natural gases
Propane

CE MPX...: 0085CL0214

Wall-hung gas condensing boilers, fully pre-set, equipped to operate with natural gas or propane.
Particularly compact size (700 x 400 x 299 mm) for MPX 24 Compact - MPX 20/24 MI, 24/28 MI and 28/33 MI Compact.
Simple and functional control panel with backlit screen, heating and DHW temperature setting buttons, access button to all the setting parameters and error codes display with history.
Suitable for all applications, thanks to the wide choice of optional hydraulic and flue system accessories available as options.
Various air/flue gas connection solutions are also available: horizontal or vertical forced flue, chimney, bi-flow connection or on a collective pipe.

Conditions of use

Max. operating pressure: 3bar
Max. operating temperature: 80°C
Safety thermostat: 110°C
Power supply: 230V/50Hz
Protection index: IP X5D

Homologation

B_{23} - C_{13x} - C_{33x}- C_{53x}- C_{93x}- C_{83x}*
B_{23p} - B_{33} - C_{43x}

Gas category

Fitted and preset to operate on natural gases and propane,
Classe NOx: 6 according to EN 15502-1

* to be adapted according to the country for which the boilers are intended

PRESENTATION

MPX… boilers are delivered fitted, pre-set and tested in the factory. They are pre-equipped to operate with natural gas or propane.
The MPX… MI Compact boilers are combi boilers producing high quantities of domestic hot water (*** classification as per standard EN 13203) thanks to a large-sized stainless steel plate heat exchanger.
The MPX 24 Compact boiler comes equipped with a heating/DHW reversal valve for connecting to an independent domestic hot water tank.

There are 2 types of DHW tank available as options:
- 80-litre tank BMR 80, to be placed next to the boiler on either side,
- 130-litre tank SR 130 to be installed on the floor under the boiler.

The MPX 28/33 BIC boiler is particularly compact (600 x 900 x 460) and high-performance: DHW is produced by a 45-litre stainless steel storage tank built into the boiler, in combination with a large exchange surface external plate heat exchanger, a DHW pump and a heating/DHW reversal valve.

High level of performance

- Efficiency at 30% load up to 108.9 %,
- NOx class: 6 according to EN 15502-1,
- Sound power level LWA indoors: from 48 to 53 dB(A),
- Very low polluting emissions (compliance with future requirement of 2018 ErP directive):
  • NOx ≤ 22 mg/kWh for MPX 24 Compact and MPX 28/33 BIC,
  • NOx ≤ 24 mg/kWh for MPX.. MI Compact.

Options

- Hydraulic connecting kits (water and gas),
- Outdoor temperature sensor,
- Solar kit to connect the boiler to a solar DHW (for MI boilers),
- 2 circuit control module,
- Condensates neutralisation station.

See page 9

Boilers can be connected with either a horizontal or vertical forced flue, on a chimney, bi-flow or a collective pipe.
These flue system accessories are also ordered separately.

Strong points

- **Stainless steel spiral exchanger** with composite material casing and automatic venting function upon commissioning
- Air/gas module with built-in gas burner **with 14 to 100 % output** modulation and **automatic combustion management system**
- **Hydraulic module with brass body**, with built-in modulating heating pump, automatic bypass, heating/DHW reverser valve, 3 bar safety valve, pressure gauge, high-performance stainless steel plate heat exchanger for DHW production with micro-accumulation *** as per EN 13203
- **7-litre expansion vessel** for MPX 24 and …MI Compact, 10 litre for MPX 28/33 BIC
- Modulating fan controlled in PWM
- Air/gas mixer for homogeneous mix
- Mechanical pressure gauge under the boiler to fill the installation without power to the boiler
- Modulating heating pump which automatically adapts according to the specifications of the installation (maintains a ΔT of 20°C
- Simple and functional control panel with backlit screen, heating and DHW temperature setting buttons, access button to all the setting parameters and error codes display with history.
  Various room thermostats are available as options: on/off or modulating thermostats, or a **connected room thermostat for remote control of the heating and DHW via a free to download application.**

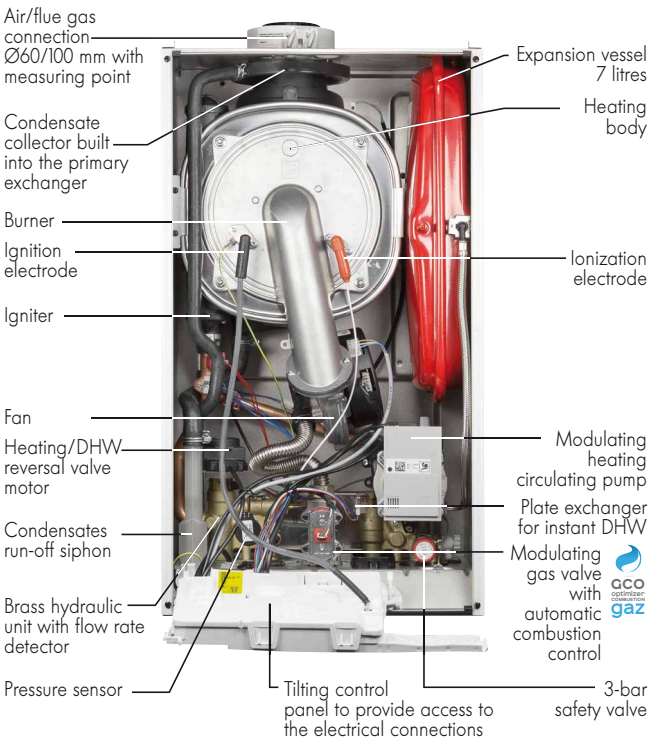
MODELS AVAILABLE

Models		Boiler	Useful output	
			Heating mode at 50/30°C (kW)	**DHW mode at 80/60°C (kW)**
 MPX_Q0008	For heating only	MPX 24 Compact	3.7 – 26.1	24
 MPX_Q0015	For heating and domestic hot water production by integrated 40-litre calorifier	MPX 28/33 BIC	5.1 - 30.6	34
 MPX_Q0008	For heating and instant hot water production	MPX 20/24 MI Compact	3.7 - 21 .8	24
		MPX 24/28 MI Compact	4.1 – 26.1	28
		MPX 28/33 MI Compact	5.1 – 30.6	33

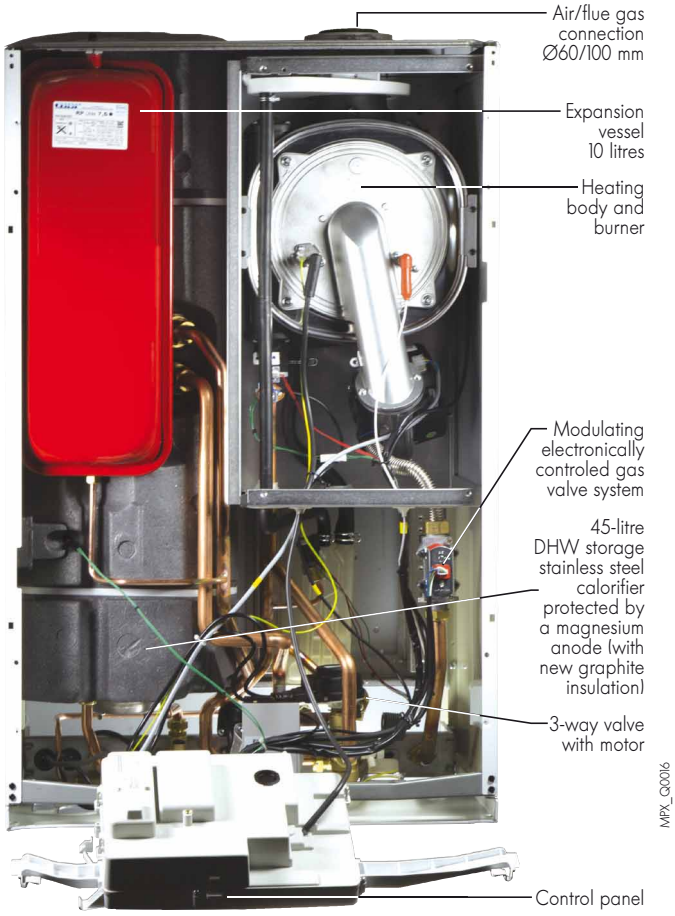
TECHNICAL SPECIFICATIONS

Description

MPX ... MI Compact

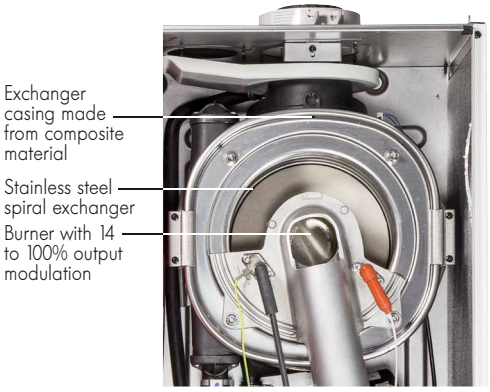


MPX 28/33 BIC



MPX_Q0016

Cross-section of exchanger and burner



MPX_Q0012

Energy label

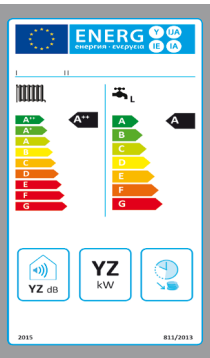
Each boiler comes with its energy label, which incorporates various items of information: energy efficiency, annual energy consumption, manufacturer's name, noise level…
If you combine your boiler, for instance, with a solar system, a DHW storage tank, a control device or another generator, you can improve your system's performance and generate the corresponding «system» label: **go to our website « www.ecodesign.dedietrich-heating.com »**

ECO SOLUTIONS
De Dietrich

Created by De Dietrich, the **ECO-SOLUTIONS** label guarantees you a range of products compliant with the European Eco-design and Energy Labelling directives. These directives apply since 26 September 2015 to heating and domestic hot water appliances.

With De Dietrich **ECO-SOLUTIONS**, you can benefit from the latest generation of multi-energy systems, easier to use, with better performance and energy savings, designed to give you greater comfort while caring for the environment. **ECO-SOLUTIONS** also mean expertise, advice and a wide range of services from the De Dietrich professional network.

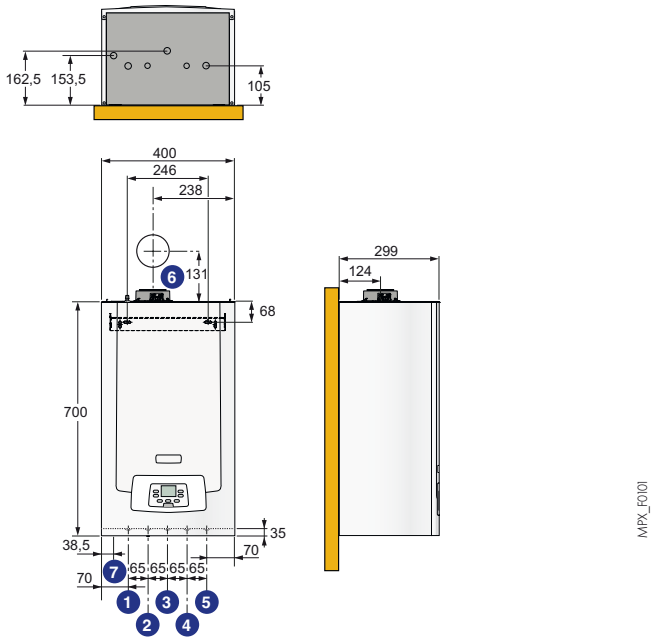
The energy label, together with the **ECO-SOLUTIONS**, shows you the performance of your chosen product. More info at **www.ecodesign.dedietrich-heating.com**



TECHNICAL SPECIFICATIONS

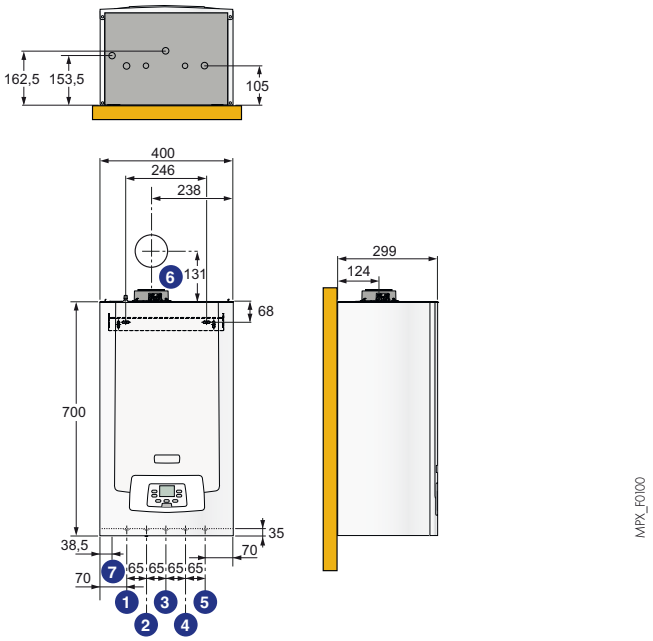
Main dimensions (in mm and inches)

⇨ MPX 24 Compact



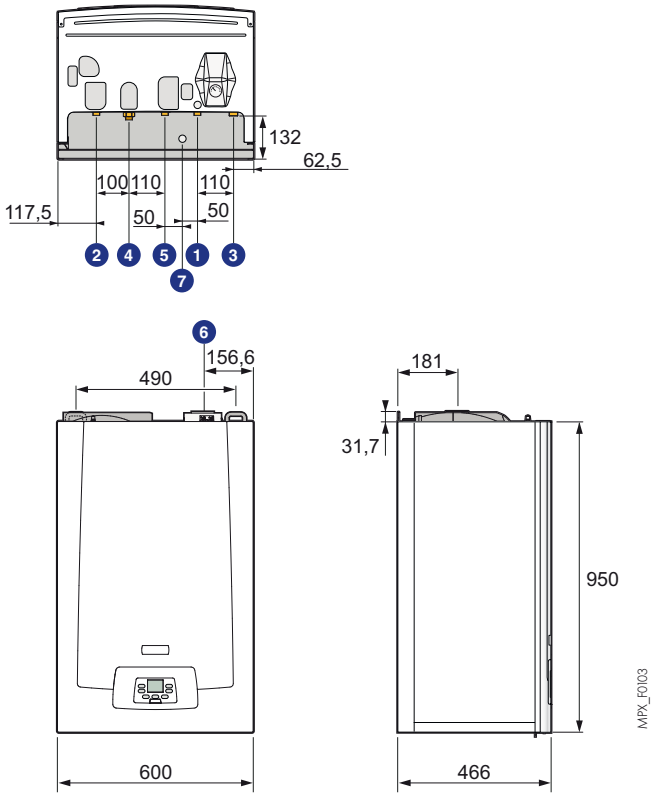
1. Heating flow G 3/4"
2. Primary calorifier outlet (if exist) G 1/2"
3. Gas inlet G 3/4"
4. Primary calorifier return (if exist) G 1/2"
5. Heating return G 3/4"
6. Evacuation of combustion products and air inlet pipe Ø 60/100 mm
7. Condensates drain Ø 22 mm

⇨ MPX 20/24 MI Compact, MPX 24/28 MI Compact, MPX 28/33 MI Compact



1. Heating flow G 3/4"
2. Domestic hot water outlet G 1/2"
3. Gas inlet G 3/4"
4. Domestic cold water inlet G 1/2"
5. Heating return G 3/4"
6. Evacuation of combustion products and air inlet pipe Ø 60/100 mm
7. Condensates drain Ø 22 mm

⇨ MPX 28/33 BIC



1. Heating flow G 3/4"
2. Domestic hot water outlet G 1/2"
3. Gas inlet G 3/4"
4. Domestic cold water inlet G 1/2"
5. Heating return G 3/4"
6. Evacuation of combustion products and air inlet pipe Ø 60/100 mm
7. Condensates drain Ø 22 mm

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION

Boiler type: condensing
Burner: modulating with complete premixing
Energy used: natural gas or propan
Combustion evacuation: chimney or sealed

Classe NOx: 6 according to EN 15502-1
Protection index: IP X5D
Ref. CE certificate: 0085CL0214

Model		MPX	24 Compact	20/24 MI Compact	24/28 MI Compact	28/33 MI Compact	28/33 BIC
Useful nominal output at Pn		kW	24	20	24	28	28.9
Useful output at 50/30°C Pn (heating mode) min.-max.		kW	3.7 – 26.1	3.7 - 21 .8	4.1 – 26.1	5.1 – 30.6	5.1 - 30.6
Useful output at 80/60°C (heating mode) min.-max.		kW	3.4 - 24	3.4 - 20	3.8 - 24	4.7 - 28	4.7 - 28
Nominal output at 80/60°C (DHW mode)		kW	-	24.0	28	33	33
Efficiency in % of low calorific power at load … % Pn and water temp. …°C	- 100% Pn at ave. temp. 70°C	%	97.6	97.7	97.6	97.8	97.7
	- 30% Pn at return temp. 30°C	%	108.8	108.8	108.8	108.9	108.9
Seasonal space heating energy efficiency (1)		%	93	93	93	93	93
Nominal water output at Δt = 20K		m^3/h	1 .03	0.86	1 .03	1 .21	1 .21
Manometric height available for heating circuit at Δt = 20K		mbar	220	350	220	150	150
Water capacity		l	1 .5	1 .5	1 .5	1 .8	1 .8
Gas flow at Pn (15°C – 1013 mbar)	- gas H	m^3/h	2.61	2.61	3.06	3.60	3.60
	- gas L	m^3/h	3.04	3.04	3.55	4.18	4.18
	- propan	kg/h	1 .92	1 .92	2.25	2.64	2.64
Max. flue gas temperature at 80/60°C		°C	80	80	80	80	80
Min.-max. flue gas mass. flow rate		kg/s	0.002-0.012	0.002-0.012	0.002-0.014	0.002-0.016	0.002-0.016
Flue gas pressure available		Pa	100	100	100	100	100
Stand-by losses at Δt = 30K		W	35	35	35	40	61
Auxiliary electrical power (ex. heating pump) at Pn		W	42	30	42	41	60
Electrical power in stand-by		W	3	3	3	3	3
Electrical power heating pump		W	23	23	23	23	23
Noise output		dB(A)	52	49	48	53	53
Net weight		kg	30	34	34	35	67.5

(1) According to commission regulation (EU) n° 813/2013.

Specifications domestic hot water

	MPX	24 Compact + BMR 80	24 Compact + SR 130	20/24 MI Compact	24/28 MI Compact	28/33 MI Compact	28/33 BIC
DHW calorifier capacity	l	74	122.3	-	-	-	45
Exchanged power	kW	24	24	24	28	33	34
Flow per hour at Δt = 35K	l/h	591 (1)	591 (1)	-	-	-	811
Flow over 10 min at Δt = 30K	l/10min	165 (2)	200 (2)	-	-	-	183
Spec. flow at Δt = 30K (compliance with EN 13203-1)	l/min	16.5 (2)	20.0 (2)	11 .5	13.4	15.8	18.3
Coefficient of heat losses	W/K	1 .26	1 .38	-	-	-	1 .42

(1) Domestic performance at room temp.: 20°C, cold water temp.: 10°C, primary hot water temp.: 80°C.
(2) Domestic performance at room temp.: 20 °C, cold water temp.: 10 °C, primary hot water temp.: 85 °C, storage temp.: 60 °C.

CONTROL PANEL

MPX CONTROL PANEL

The control panel on MPX boilers is an electronic board with a **simple and functional** digital display. The basic settings are made by means of 2 keys for setting the heating temperature, 2 other keys for the DHW temperature, and another for selecting the operating mode: heating, heating + DHW, DHW only. This panel also provides access to the other operating parameters and the error codes display with history on a backlit screen.

It comes with built-in automatic regulation of a direct circuit and a DHW circuit (DHW sensor – HX96 package - as an option for MPX 24 Compact). A circuit with mixer valve can be regulated by adding on the "2-circuit control module – AD290 package" option, see below.
There is also a range of room and/or outside temperature-based regulators available as an option: see next page.

CONTROL PANEL OPTIONS

➪ **Choice of options according to the connected circuits**

	Circuit type			
MPX control panel	MPX	HX96 (1)	(2)	AD290 (2)
	MPX.. MI MPX.. BIC	(1)	(2)	AD290 (2)

Room and/or outside temperature-based regulation:
(1) Using the modulating room thermostats AD303 or AD304 enables domestic hot water function programming
(2) Possibly supplemented by: - if you want room temperature-based regulation:
room thermostat (package AD247, AD248, AD140, AD301, AD303 or AD304)
- if you want outside temperature-based regulation:
• package HX94 outside sensor
• outside sensor + room thermostat (package AD247, AD248, AD140, AD301, AD303 or AD304)

CONTROL PANEL

MPX CONTROL PANEL OPTIONS


MPX_Q0022

Domestic hot water sensor - Package HX96
The domestic hot water sensor for MPX 24 Compact is used to apply priority regulation to DHW production by an independent calorifier.


CMIX_Q0001

2-circuit control module - Package AD290
Only works in association with 1 or 2 modulating "OpenTherm" room thermostats (AD303 or AD304), and enables control of a radiator direct circuit and a circuit with mixer valve or 2 circuits with mixer valve. It is delivered with one outflow sensor for each of the circuits to be controlled, as well as with an outside sensor and a mains power supply cord. The boiler/module connection shall be provided by means of an "OpenTherm " bus cable (not supplied).


HA249_Q0001

Connection kit for direct underfloor heating - Package HA249
This wiring harness is inserted into the heating circulating pump, and contains the wires for connecting the safety thermostat of an underfloor heating circuit.


MPX_Q0007

Outside temperature sensor - Package HX94
The outside sensor can be used on its own or in combination with the room thermostats, to regulate the heating based on the outside temperature.

AD247


8801Q029

AD140


8801Q003

Programmable room thermostat (**wire**) - Package AD247
Programmable room thermostat (**wireless**) **-** Package AD248
Non-programmable room thermostat (**wire**) **-** Package AD140
The programmable room thermostats - package AD247/AD248 provide regulation and weekly programming of heating by adjusting the burner in various operating modes: "Automatic" as programmed, "Permanent" at a set temperature or "Holidays". The "wireless" version is delivered with a receiver box to be mounted on the wall close to the boiler.
The 230 V version is an analogue clock thermostat with weekly programming. It works in "Automatic" mode as programmed or "Manual" mode at a constant set temperature. It does not need a battery for the power supply, but is connected to the mains. The non-programmable thermostat is used to regulate the room temperature based on the set point, by adjusting the burner.


NANEO_Q00043A

Non programmable modulating room thermostat "OpenTherm" (**wire**) **-** Package AD301
This thermostat handles the regulation of the room temperature adapting the boiler power according to the preset temperature. Handles also the regulation of the DHW temperature. It includes adjustment parameters for the MPX boilers: read out and setting DHW temperature , max. heating temperature…., energy counters (number of startings, number of heating pump, DHW or total operating hours, …), service alerts, etc…

AD304


isense_Q00003

AD303


isense_Q00004

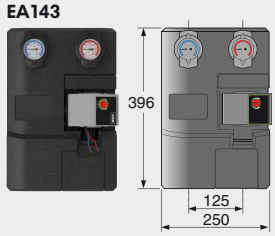
Programmable room thermostat modulating "OpenTherm" (**wire**) **-** Package AD304
Programmable room thermostat modulating "OpenTherm" (**wireless**) **-** Package AD303
This thermostat handles the regulation and programming of the heating and of DHW.
The regulator adapts the power boiler to the needs
3 modes of operating are possible:
- **AUTOMATIC:** according the weekly programming used: for each programmed period, we can indicate the set temperature.
- **PERMANENT:** maintains the set temperature chosen for the day, night or antifreeze.
- **VACATION:** intended for absences of long duration. Allows to bring in the dates of beginning and end of the vacation as well as the desired temperature.

For operation according to the outside temperature, a outside sensor (package HX94) can be added.

HYDRAULIC ACCESSORIES

Hydraulic modules

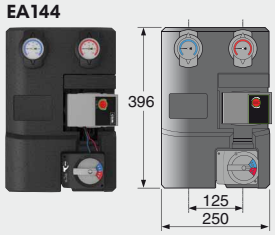
EA143



Hydraulic module for 1 direct circuit - Package EA143

Fully assembled, insulated and tested: fitted with a electronic pump with energy efficiency index EEI<0.23, thermometers built into the gate valves, and a non-return valve built into the return valve.

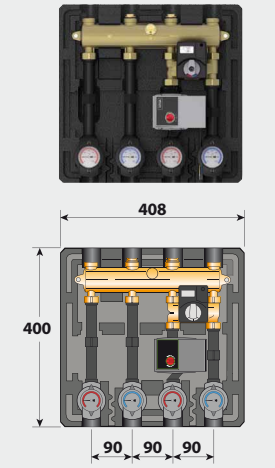
EA144



Hydraulic module for 1 circuit with mixing valve - Package EA144

Fully assembled, insulated and tested: fitted with an electronic pump with energy efficiency index EEI<0.23, a motorized 3-way valve, thermometers built into the gate valves, and a non-return valve built into the return valve.

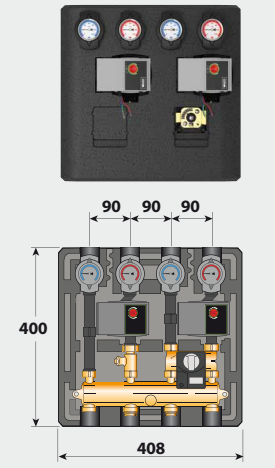
EA145



Compact hydraulic module for 2 circuits (with pump with energy efficiency index EEI<0.23) - Package EA145

This module is fitted with the heating pump and the motorized 3-way valve for the circuit with mixing valve, with thermometers built into gate valves from the 2 circuits. The module is delivered assembled, insulated and tested.

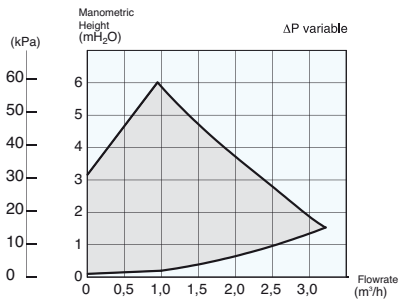
MT12

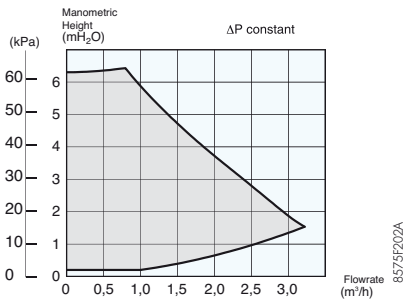


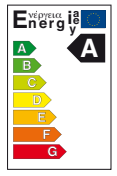
Compact hydraulic module for 2 circuits (with 2 pumps with energy efficiency index EEI<0.23 for a direct circuit and a circuit with mixing valve) - Package MT12

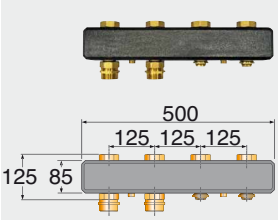
This module is fitted with the heating pump for the direct circuit, the pump and the motorized 3-way valve for the circuit with mixing valve, with thermometers built into gate valves from the 2 circuits. The module is delivered assembled, insulated and tested.

Circulating pump specifications (WILO YONOS PARA RS 25/6 fitted on hydraulic modules EA143 and EA144 or RS 15/6 fitted on hydraulic modules EA145 and MT12)



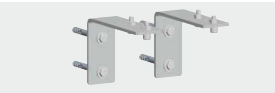






Collector - Package EA140

With an installation with 2 or 3 circuits.



Set of 2 wall consoles for collector - Package EA141

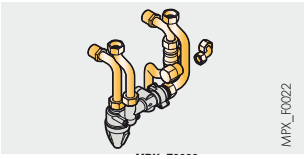
Enables the collector to be mounted on the wall.

OPTIONS

Wall console for 1 hydraulic module - Package EA142

This console enables 1 hydraulic module to be mounted, for a direct circuit or a valved circuit, on the wall.

Used when one of the 2 hydraulic modules is fitted on its own. It incorporates 2 male/female brass connectors.



Solar kit - Package HX88 for MPX… MI Compact only

This kit contains the pipes needed to connect the boiler to a solar DHW tank, including the directional thermostatic valve and the cold water isolating valve. It enables a solar system to be combined with the MPX..MI Compact boiler and the DHW circuit regulator, depending on the user's needs.

Condensates neutralisation station DN1 - Package SA1
Wall bracket for neutralisation station DN1 - Package SA2
Granule refill for neutralisation (10 kg) - Ref. 94225601

The materials used for the condensates flow pipes must be appropriate; otherwise the condensates must be neutralised. A regular check of the neutralisation system and particularly the effectiveness of the granules by measuring the pH is necessary. If need be, the granules should be replaced.

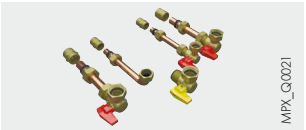
BMR 80 - Package EE53
SR 130 - Package EE22

BMR 80 and SR 130 domestic hot water calorifiers are high performance calorifiers. They are protected inside by food quality standard high quartz content vitrified enamel and by a magnesium anode. The specifications of these calorifiers combined with MPX boilers are given on pages 2 and 3.

The boiler/water calorifier connection kits available include rigid and/or flexible connection pipes between the boiler and the calorifier. Domestic hot water sensor (HX96) to be ordered separately.

Hydraulic connection kit for MPX 24 Compact - Package HX113

This kit contains water and gas connection pipes with valves to screw directly on the boiler.

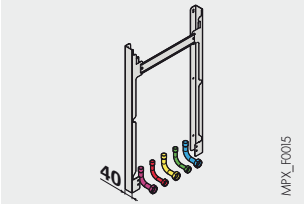


Hydraulic connection kit for MPX… MI Compact - Package HX114

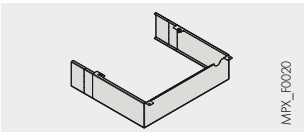
This kit contains water and gas connection pipes with valves to screw directly on the boiler.

Water and gas connection pipes for replacing and existing boiler (only for MPX…MI Compact boiler) - Package HX17

This kit contains water and gas connection pipes with valves to screw directly on the boiler.



Stand-off frame (40 mm) for MPX… - Package HX91



Pipe cover - Package HX93

Provides a neat finish underneath the boiler.

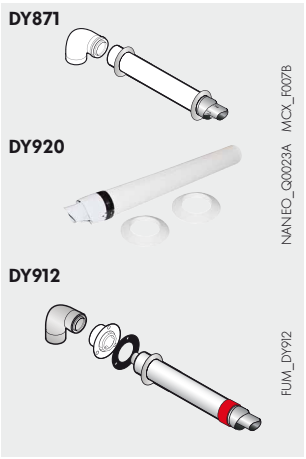
Offset wrench - Package HX95

AIR/FLUE GAS CONNECTION

Air/flue gas connection

The MPX... boilers can be connected to a **horizontal PPS wall terminal in C_{13x} configuration:**

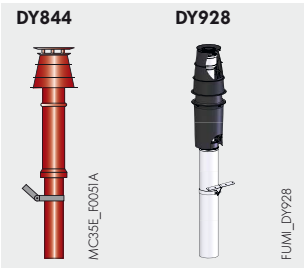
- with elbow: Ø 60/100 mm, package DY871 or "Retrofit" package DY912
- without elbow: Ø 60/100 mm, package DY920



Horizontal wall terminal PPS Ø 60/100 mm with inspection elbow - Package DY871
Horizontal wall terminal PPS Ø 60/100 mm "Retrofit" - Package DY912
Horizontal wall terminal PPS Ø 60/100 mm without elbow - Package DY920

The MPX... boilers can be connected to a **vertical PPS wall terminal in C_{33x} configuration:**

- Ø 60/100 mm, package DY928
- Ø 80/125 mm, package DY843 with adapter Ø 60/100 mm on Ø 80/125 mm, package DY708



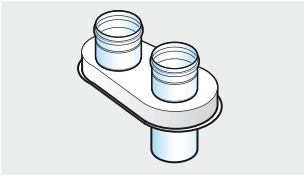
Vertical terminal PPS Ø 80/125 mm - Package DY844 (red) or DY843 (black)
Vertical terminal PPS Ø 60/100 mm - Package DY928 (black) or DY929 (red)

Specific flue systems accessories for MPX

3Cep adapter - Package HX103

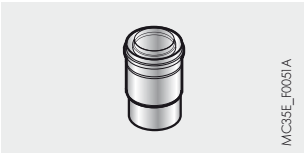
If connecting the boiler to a 3Cep collective pipe, use package HX103 presented opposite, which incorporates the Ø 60/100 mm to Ø 80/125 mm reduction, as well as the flue gas valve.

To determine the location of the connection to the 3Cep pipe, refer to the diagram on the next page.



Adapter bi-flow - Package DY723

Allows the air/flue gas connection of the boiler in configuration C_{53}.



Ø 60/100 mm to 80/125 adapter - Colis DY708

The boiler comes delivered for a Ø 60/100 mm air/flue gas connection.

This adapter enables the boiler to have a Ø 80/125 mm connection if necessary.

INFORMATION REQUIRED FOR INSTALLATION

Statutory instructions on installation and maintenance

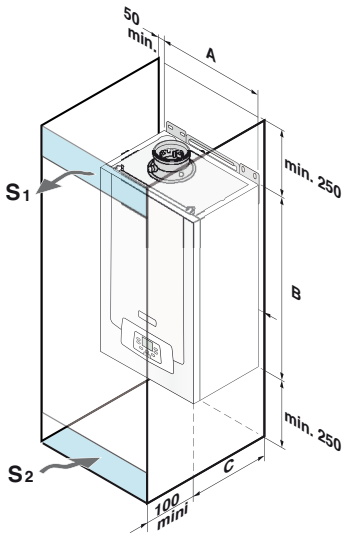
The installation and maintenance of the appliance in both residential buildings and establishments open to the public must be carried out by a qualified professional in compliance with the statutory texts of the codes of practice in force.

Location

MPX... condensing boilers must be installed in premises protected from frost, which can also be ventilated. The IP X5D protection index enables them to be installed in kitchens and bathrooms, excluding protection volumes 1 and 2, however.
In order to ensure adequate accessibility around the boiler, we recommend that you respect the minimum dimensions given opposite.

Aeration

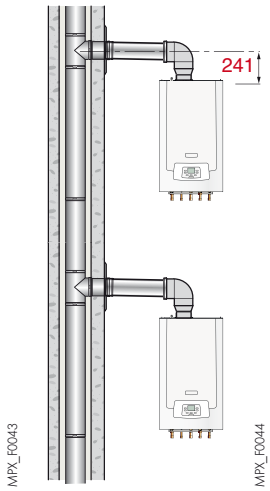
This must comply with prevailing regulations.



$S_1 + S_2$:
- 600 cm² (B_{23P}/B_{33})
- 150 cm² (C_{13x}, C_{33x}, C_{93x}, C_{53})

	A	B	C
MPX... Compact	400	700	300
MPX... BIC	600	982	466

HX103



In order to avoid damage to boilers, it is necessary to prevent the contamination of combustion air by chloride and/or fluoride compounds, which are particularly corrosive.
These compounds are present, for example, in aerosol spray cans, paints, solvents, cleaning products, washing powders/liquids, detergents, glues, snow clearing salts, etc.

It is therefore necessary:
- To avoid sucking in air discharged from premises using such products: hairdressers, dry cleaners, industrial premises (solvents), premises containing refrigeration systems (risk of leaking refrigeration fluid), etc.
- To avoid the storage of such products close to boilers.

Please note that, if the boiler and/or its peripherals become corroded by chloride and/or fluoride compounds, our contractual warranty cannot be invoked.

Gas connection

Comply with prevailing national or even local instructions and regulations. In all cases, a sectional valve is fitted as close as possible to the boiler. This valve is delivered prefitted to the hydraulic connection plate delivered with MPX boilers. A gas filter must be fitted to the boiler inlet.

Gas supply pressure:
- 20 mbar on natural gas H, 25 mbar on natural gas L,
- 37 on propan.

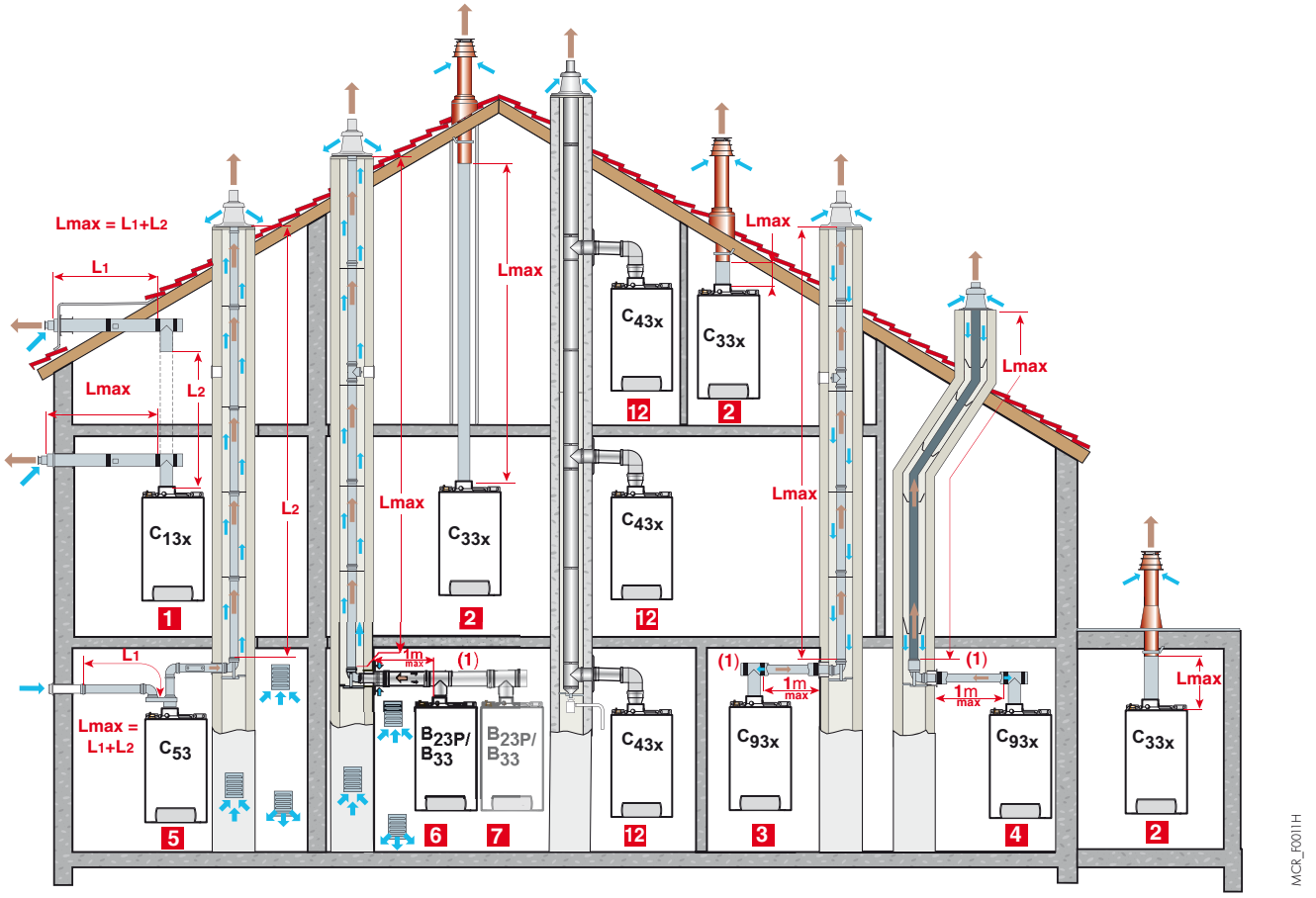
Electrical connection

This must comply with the prevailing standard.
The boiler must be powered by an electrical circuit comprising a omnipole switch with an opening distance > 3 mm. Protect the connection to the mains with a 6 A fuse.

Notes:
- The sensor cables must be separated from the 230 V circuits by at least 10 cm.
- In order to protect the pump antifreeze and cleaning functions, we recommend not switching off the boiler at the mains switch.

AIR/FLUE GAS CONNECTION

For the use of the air/flue gas connection pipes and the rules on installation, see details of the various configurations in the current product catalogue.



1 **Configuration C_{13x}:** Air/flue gas connection by means of concentric pipes to a horizontal terminal (so-called forced flue)
2 **Configuration C_{33x}:** Air/flue gas connection by means of concentric pipes to a vertical terminal (roof outlet)
or
3 **Configuration C_{93x}:** Air/flue gas connection using concentric pipes in the boiler room and single pipes in the chimney (combustive air with counter current in the chimney)
or
4 air/flue gas connection using concentric pipes in the boiler room and single "flex" pipes in the chimney (combustive air with counter current in the chimney)

5 **Configuration C_{53}:** Separate air and flue gas connection using a twin pipe adapter and single pipes (combustive air taken from outside)
6 **Configuration B_{23P}/B_{33}:** Connection to a chimney (combustive air taken from the boiler room)
12 **Configuration C_{43X}:** Connection to a collective shared flue system

(1) For each additional metre of horizontal pipe, remove 1.2 m from the vertical length Lmax shown in the table below.

Table of maximum air/flue gas pipe lengths admissible according to boiler type

Configuration type	C_{13X}		C_{33X}		C_{93X} (rigid)	C_{93X} (flex)	C_{53}	B_{23P}/B_{33} (rigid)	B_{23P}/B_{33} (flex)	C_{43X}
Diameter (in mm)	60/100	80/125	60/100	80/125	- 80/125 in boiler room - 80 in chimney	- 80/125 in boiler room - 80 in chimney	60/100 to 2 x 80	80	80	To determine the size of such a system, consult the pipe supplier
MPX... boiler	10	25	10	25	20	20	15* + 35 (* = L2 max)	25	25	

AIR/FLUE GAS CONNECTION

HYDRAULIC CONNECTIONS

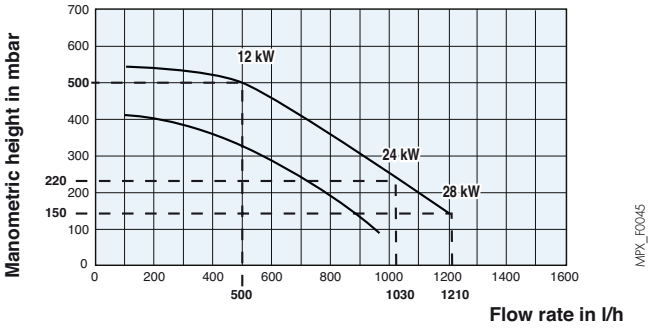
Important: The principle of a condensing boiler is to recycle the energy contained in the water vapour in the combustion gases (latent vaporisation heat). Consequently, to achieve an annual operating efficiency in the order of 109%, it is necessary to size the heating surfaces in such a way as to obtain low return temperatures, below the dew point (e.g. underfloor heating, low temperature radiators, etc.) during the entire heating period.

Connection to the heating circuit

MPX boilers must only be used in closed circuit heating installations. The central heating systems must be cleaned to eliminate the debris (copper, strands, brazing flux) linked to the installation of the system and deposits that can cause malfunctions (noise in the system, chemical reaction between metals). More particularly, if fitting a boiler to an existing installation, it is strongly recommended that you clear sludge out of the system before installing the new boiler.

Furthermore, it is important to protect central heating installations against the risk of corrosion, scaling and microbiological growth by using a corrosion inhibitor adapted to all types of systems (steel, cast iron radiators, heated floor, PER).
The water treatment products used must comply with regulations.

Manometric height of the heating circulating pump



Condensates discharge

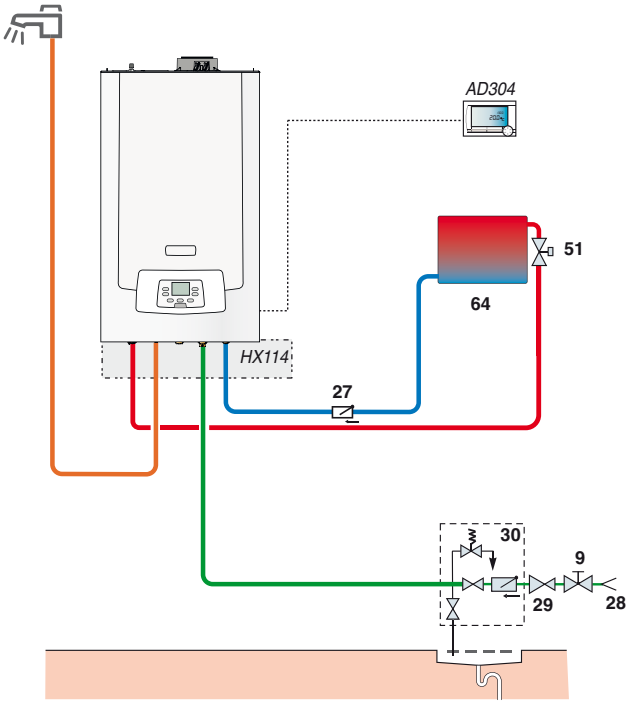
The siphon provided must be connected to the waste water discharge system. The connection must be removable and the flow of condensates visible. The connections and pipes must be in corrosion-resistant material. An optional condensates neutralisation system is available (package SA1 see page 9).

EXAMPLES OF INSTALLATIONS

The examples presented below cannot cover the full range of installation scenarios which may be encountered.
Their purpose is to draw the attention to the basic rules to be followed. A certain number of control and safety devices (some of which are already integrated as standard in MPX boilers) are represented but it is ultimately up to installers, experts, consultant engineers and design departments to take the final decision on the safety and control devices to be used in the boiler room according to its specificities. In all cases, it is necessary to abide by the codes of practice and prevailing regulations.

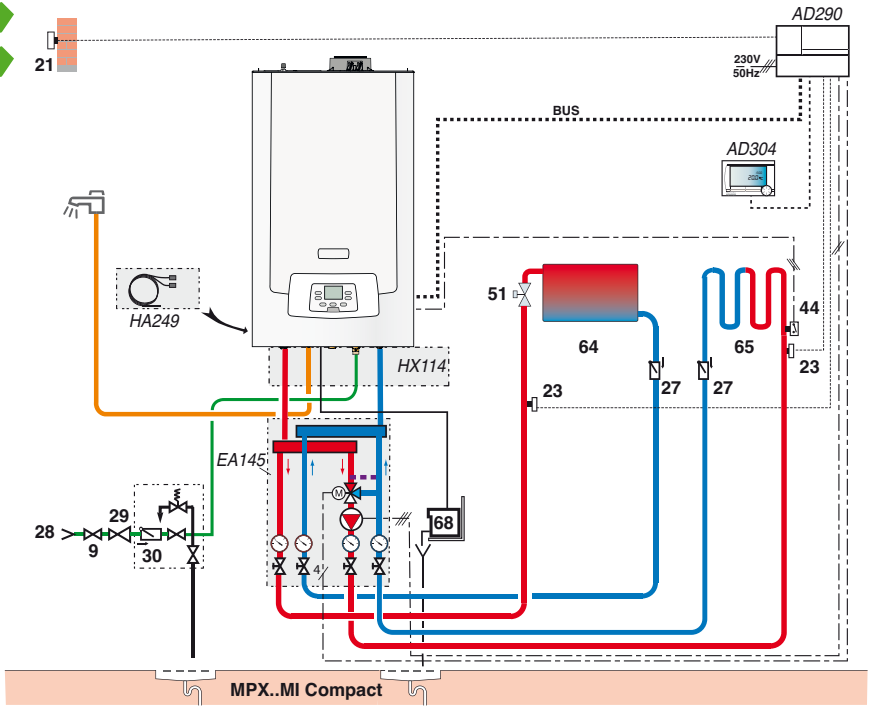
Attention: for the connection of domestic hot water, a sleeve made of steel, cast iron or any other insulating material must be interposed between the hot water outlet and these pipes to prevent any corrosion to the connections, if the distribution pipes are made of copper.

MPX.. MI with 1 direct radiators circuit and 1 DHW circuit with micro-accumulation, controlled by a modulating room thermostat for OpenTherm (wire)



MPX_F0070

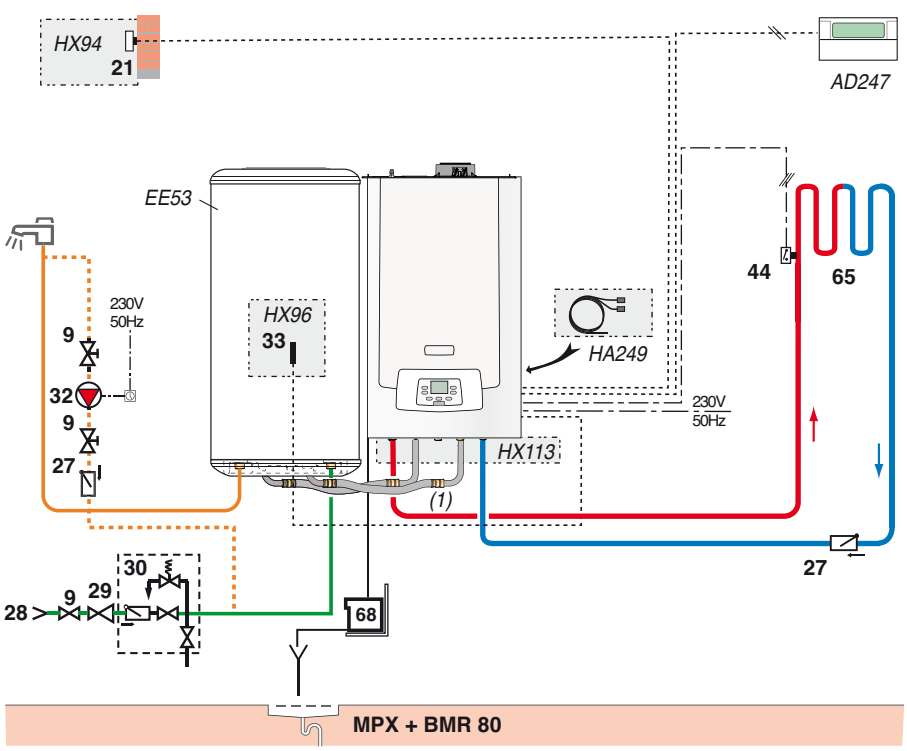
MPX…MI Compact with 1 direct circuit, 1 circuit with mixer valve and 1 DHW circuit with micro-accumulation, controlled by a 2-circuit control module with outside sensor (AD290) combined with a modulating room thermostat



MPX_F0071

EXAMPLES OF INSTALLATIONS

MPX 24 Compact + BMR 80 with 1 direct underfloor heating circuit + 1 DHW circuit with separate tank, controlled by a programmable on/off room thermostat + outside sensor



MPX_F0072

Key

9 Isolation valve
21 Outside sensor
23 Outlet temperature sensor after mixing valve
27 Non-return valve
28 Domestic cold water inlet
29 Pressure reducer
30 Sealed safety device calibrated to 7bars*
32 (Optional) DHW loop pump
33 DHW temperature sensor
44 5°C limiter thermostat with manual reset for underfloor heating
51 Thermostat valve
64 Radiator circuit (gentle heat radiators, for example)
65 Low temperature circuit (underfloor heating, for example)
68 Condensates neutralisation system
(**1**) Boiler/tank connection to be done by installer

TECHNICAL DESCRIPTION

MPX..

Gas condensing wall hung boiler, with modulating burner and electronic combustion

Brand: De Dietrich
Modell:
- MPX 24 Compact: for heating only
- MPX … MI Compac: for heating and production of instant DHW
- MPX 28/33 BIC: for heating and production of DHW with 45 litre calorifier

Homologation: B_{23} – B_{23p} – B_{33} – C_{13x} – C_{33x} – C_{43x} – C_{53} – C_{93x} – C_{83x}

Operating pressure: 3 bar
Maximum temperature: 80°C
Dimensions:
- MPX … Compact: 450 (W) x 763 (H) x 345 (D) mm
- MPX 28/33 BIC: 600 (W) x 950 (H) x 466 (D) mm

DHW outlet: G 1/2"
Boiler heating flow: G 3/4"
Flue gas connection: Ø 60/100 mm

Description

- Complies with the requirements of European directives
- Protection sign IP X5D
- Very high annual efficiency up to 109 % on PCI
- High level of comfort in DHW 3***
- MPX …MI Compact: flow rate 12 to 15.8 l/min
- MPX 28/33 BIC: flow rate 12 to 18.3 l/min, 45 litres DHW storage tank with magnesium anode and new graphite insulation
- Seasonal space heating energy efficiency
- Stainless steel heat exchanger with double external envelope in composite
- Stainless steel plate heat exchanger, accessible from the front for easy maintenance
- Stainless steel pre-mix burner, modulating from 14 to 100 % of the output
- GCO combustion control system
- Modulating pump with efficiency sign EEI < 0,23
- Brass hydrobloc
- Possibility of limiting the maximum power to the needs of the installation
- Low polluting emissions:
  - MPX 24 Compact – MPX 28/33 BIC: NOx < 22 mg/kWh
  - MPX… MI Compact: NOx < 24 mg/kWh
- Expansion vessel:
  - MPX… Compact: 7 litres
  - MPX 28/33 BIC: 10 litres
- Flame ignition and monitoring by ionization electrode
- Built-in condensate collector with siphon
- Electronic control panel with large LCD display, diagnostics help system
- Mechanical pressure gauge
- Integrated sanitary heating reversal valve

Boiler options
- Hydraulic modules
- Flue accessories
- Hydraulic connecting set
- Solar kits for the DHW preheating (for MPX…MI Compact only)
- Condensates neutralisation station
- Wall bracket for the neutralisation station
- Granules recharging (2 kg) for station

Control panel options
- Non-programmable room thermostat
- Wired and radio programmable room thermostat
- Wired and radio modulating room thermostat
- Outdoor temperature sensor

DHW options for MPX 24 Compact
- 80 litres tank (BMR 80)
- 130 litres tank (SR 130)
- DHW sensor.

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