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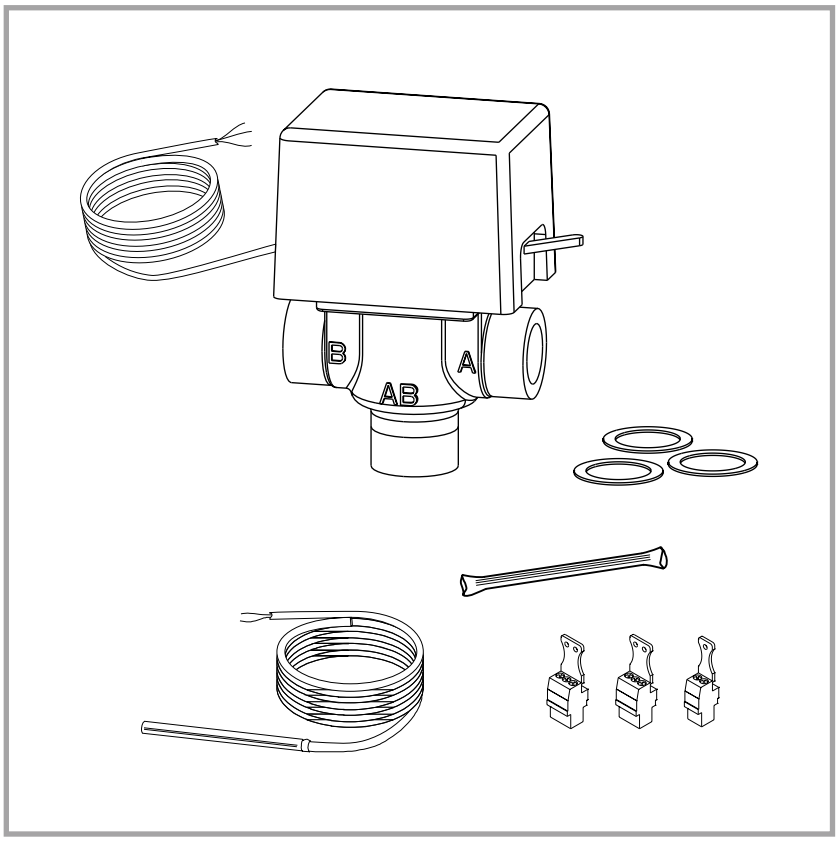
DHW kit

To connect a DHW tank
to a heat pump, Split single service

UTW-KDWXA



☞ **This manual mainly concerns the installation and connection of the directional valve and the hot water sensor.**
Please refer to the heat pump and DHW tank technical manuals for how to install and configure these items.

Installation instructions

intended for

the professional technician

these must be kept safe for

subsequent consultation

Fujitsu General (Euro) GmbH
Werftstrasse 20
40549 Düsseldorf - Germany

1 Assembly and connections

1.1 Scope of application

The plumbing kit enables you to connect a mixed DHW cylinder to a single service heat pump.

Warning !

The heat pump produces the domestic hot water, which is then additively heated, if required, by electrical backup heating inside the tank: **the tank must be fitted with an electric back-up**, essential for anti-legionella cycles.

1.2 The DHW sensor

The sensor must be installed in place of the thermostat regulation bulb in the electric back-up heating system (Figure 1).

- Temporarily remove the thermostat.
- Extract and isolate the regulation bulb from the electric back-up heating system.
- Place the hot water sensor in the housing for the cylinder sensors.
- Re-install the thermostat.

1.3 The distribution valve

Carefully comply with the direction for fitting the distribution valve:

Channel AB: Inlet from the hydraulic module

Open channel A: Outlet to DHW tank

Open channel B: Outlet to the heating circuit

☞ **Do not position the servomotor under the valve (Figure 2).**

1.4 Electrical connections

The electrical connections must only be made when all the other fitting operations have been completed (fixing, assembly, etc.).

☞ **Do not place the sensor lines and the sector supply lines in parallel in order to avoid interferences due to voltage points in the sector supply.**

Ensure that all the electrical cables are housed in the spaces provided for this purpose inside the lifting handles.

☞ **see Figure 5**

- Connect the domestic water sensor to terminal BX1 on the heat pump's control panel.
  Use the 2-contact connector.
- Connect the distribution valve to connector QX4.
  (brown wire on terminal QX4, green/yellow wire on the Earth terminal and blue wire on terminal N)
  Use a 3-contact connector (Ref. 1 or 5, Figure 6)
- Connect the DHW tank's electrical power supply coming from the electrical control panel to terminals 17, 18 and 19.
- Connect the DHW tank's resistance to terminal 19 (Earth) and to relay RP ECS on terminals 2 (L) and 4 (N)

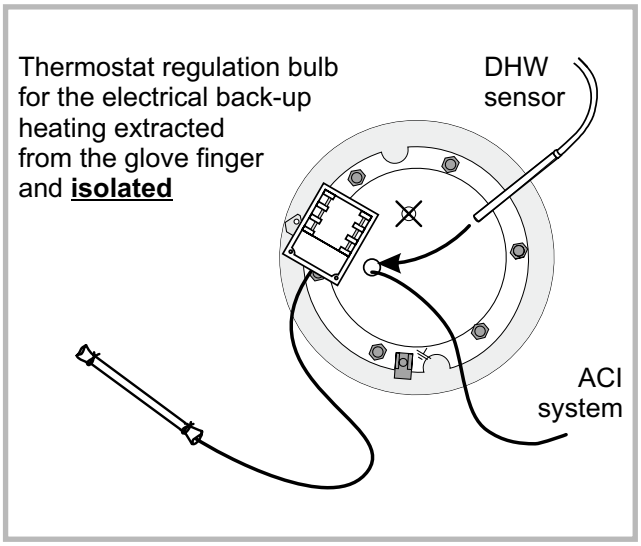


Figure 1 - Hot water sensor housing (e.g: vertical DHW tank)

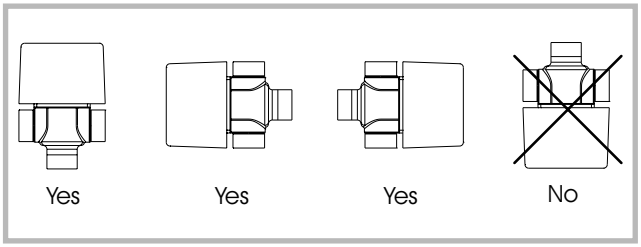


Figure 2 - Positioning of the distribution valve

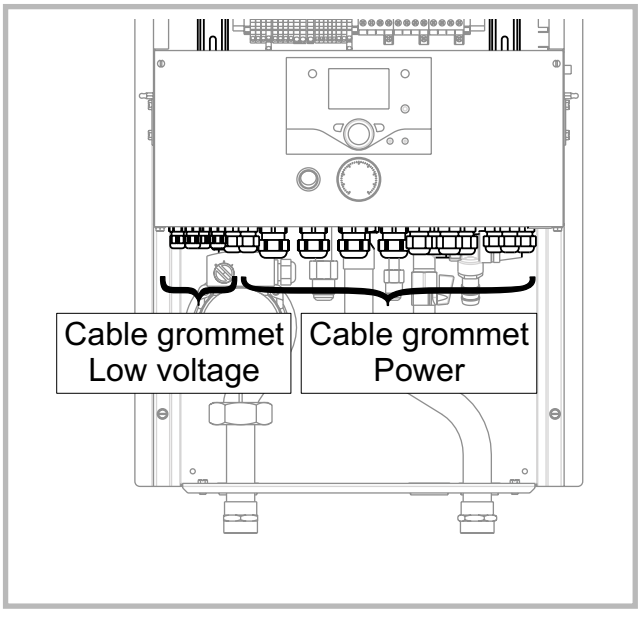


Figure 3 - Cable bushing

- Connect the ACI (active anti-corrosion protection) system's power supply for the cylinder (if provided with a power supply) to a permanent power supply protected to the level required by the manufacturer.

• **Contract with the power provider**

The heat pump's operation can be controlled to suit special contracts (e.g. off-peak, day/night). In particular, domestic hot water (DHW) at Comfort temperature will be produced during the off-peak hours when electricity is cheaper.

- Connect the "Power Provider" contact to input EX5 (Figure 5).

230V on input EX5 = "Peak hours" information activated.

1.5 Details

1.5.1 DHW tank with electrical back-up heating

The Summer/Winter switch (if present) must be set to Summer to enable the back-up heating system to operate.

1.5.2 Distribution valve

In Manual position (troubleshooting), the valve is in the intermediate position serving channels A and B at the same time.

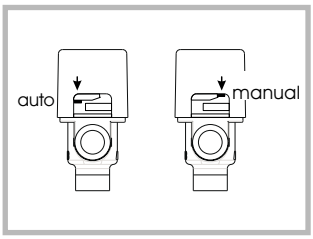


Figure 4 - Distribution valve

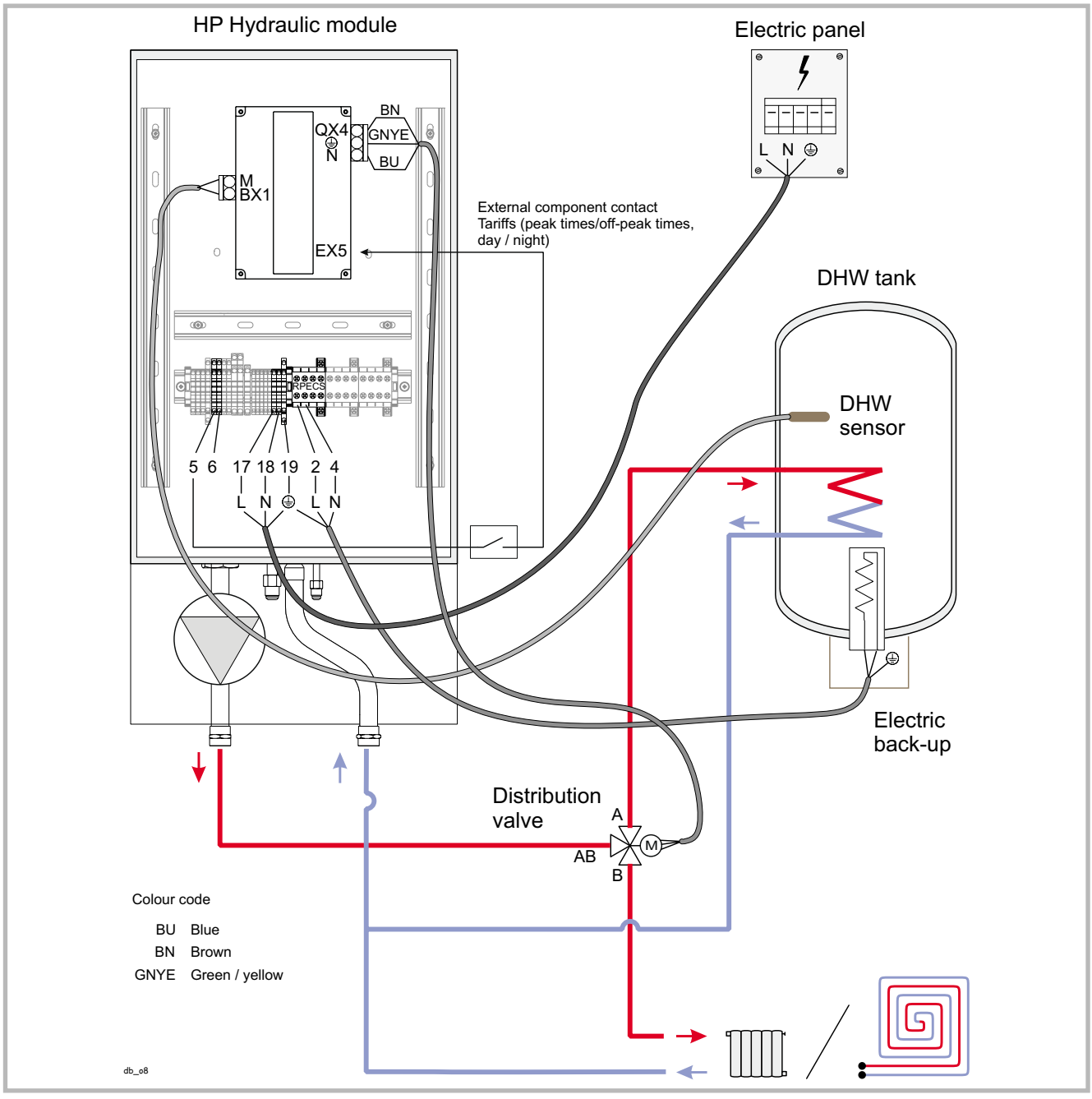


Figure 5 - Overview of the electrical connections on the hydraulic unit

2 Spare parts

When ordering spare parts, specify the appliance type and serial number, the name of the part and the part number.

Nr.	Code	Designation . . . . . Type . . . Qty
1	110841	Connector . . . . . R23 ** . . . 01
2	142735	Gasket . . . . . 26x34 . . . 03
3	188244	Distribution valve . . . . MUT . . . 01
4	198755	DHW sensor 01
5	110821	Connector . . . . . U23 * . . . 01
6	110826	Connector h2 01
7	134102	Insulating sheath . . . . . 0,20 m

* for regulator RVS41.813/**127**

** for regulator RVS41.813/**327**

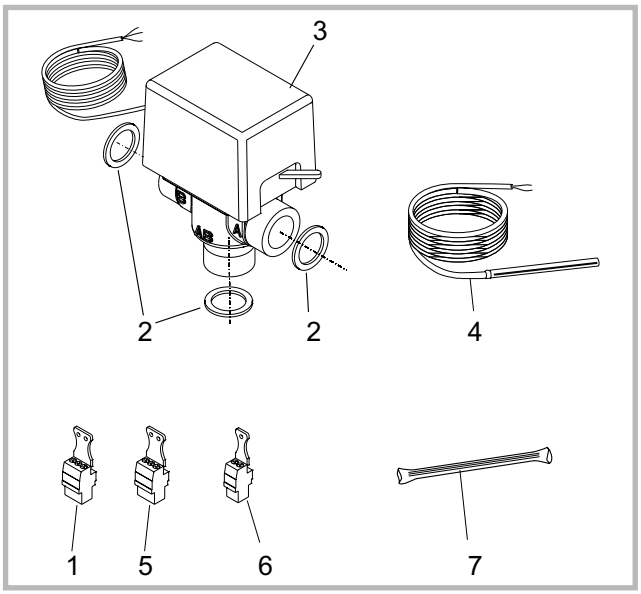


Figure 6