Installation and maintenance manual
Manuel d'installation et de maintenance
Installations- und Wartungshandbuch
Manuale di installazione e di manutenzione
Manual de instalación y de mantenimiento

English | Français | Deutsch | Italiano | Español

Domestic hot water tank
Ballon d'eau chaude sanitaire
Brauchwasserversorgung
Palla di acqua calda sanitaria
Acumulador de agua caliente sanitaria

IOM PAC 01-N-7GB
Part number / Code / Teil Nummer / Codice / Código : **3990546GB**
Supersedes / Annule et remplace / Annulliert und ersetzt /
Annulla e sostituisce / Anula y sustituye : **IOM PAC 01-N-6GB**

INSTALLATION INSTRUCTION English

NOTICE D'INSTALLATION Français

INSTALLATIONSHANDBUCH Deutsch

ISTRUZIONI INSTALLAZIONE Italiano

INSTRUCCIONES DE INSTALACIÓN Español

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POWER SUPPLY MUST BE SWITCHED OFF BEFORE STARTING WORK IN THE ELECTRIC CONTROL BOX

GENERAL RECOMMENDATIONS

Please read the following safety precautions very carefully before installing the unit.

SAFETY DIRECTIONS

Follow the safety rules in forces when you are working on your appliance.

The installation, commissioning and maintenance of these units should be performed by qualified personnel having a good knowledge of standards and local regulations, as well as experience of this type of equipment.

The unit should be handled using lifting and handling equipment appropriate to the unit's size and weight.

Any wiring produced on site must comply with the corresponding national electrical regulations.

Make sure that the power supply and its frequency are adapted to the required electric current of operation, taking into account specific conditions of the location and the current required for any other appliance connected to the same circuit.

The unit must be EARTHED to avoid any risks caused by insulation defects.

It is forbidden to start any work on the electrical components if water or high humidity is present on the installation site.

WARNING

Cutoff power supply before starting to work on the appliance.

When making the hydraulic connections, ensure that no impurities are introduced into the pipe work.

The manufacturer declines any responsibility and the warranty becomes void if these instructions are not respected.

If you meet a problem, please call the Technical Department of your area.

If possible, assemble the compulsory or optional accessories before placing the appliance on its final location. (see instructions provided with each accessory).

In order to become fully familiar with the appliance, we suggest to read also our Technical Instructions.

The information contained in these Instructions are subject to modification without advance notice.

INSPECTION AND STORAGE

At the time of receiving the equipment carefully cross check all the elements against the shipping documents in order to ensure that all the crates and boxes have been received. Inspect all the units for any visible or hidden damage.

In the event of shipping damage, write precise details of the damage on the shipper's delivery note and send immediately a registered letter to the shipper within 48 hours, clearly stating the damage caused. Forward a copy of this letter to the manufacturer or his representative.

Never store or transport the unit upside down. It must be stored indoors, completely protected from rain, snow etc. The unit must not be damaged by changes in the weather (high and low temperatures). Excessively high temperatures (above 60 °C) can harm certain plastic materials and cause permanent damage. Moreover, the performance of certain electrical or electronic components can be impaired.

WARRANTY

Any modification to the units without the manufacturer's prior approval, shall automatically render the warranty null and void.

The following conditions must be respected in order to maintain the validity of the warranty:

- Commissioning shall be performed by specialised technicians from technical services approved by the manufacturer.
- Maintenance shall be performed by technicians trained for this purpose.
- Only Original Equipment spare parts shall be used.
- All the operations listed in the present manual shall be performed within the prescribed SCHEDULE.

THE WARRANTY SHALL BE NULL AND VOID IN THE EVENT OF NON-COMPLIANCE WITH ANY OF THE ABOVE CONDITIONS.

PRODUCT PRESENTATION

This Domestic Hot Water tank is the ideal solution for producing low-cost and sustainable domestic hot water with the aid of your PAC. The heat exchanger coil surface area is perfectly adapted to the capacity of our PAC appliances and rapidly reaches the highest hot water temperature compatible with our compressors.

This steel tank has an enamelled inner surface and CFC-free polyurethane outer insulation. Anti-corrosion protection is provided by replaceable sacrificial anodes.

The special electrical control box mounted on the tank is linked to the PAC regulator and manages the system's:

- Safety devices
- Demand for Domestic Hot Water production
- Electrical resistance control, notably for Legionnaires' Disease protection treatment.

DIMENSIONS

SEE APPENDIX

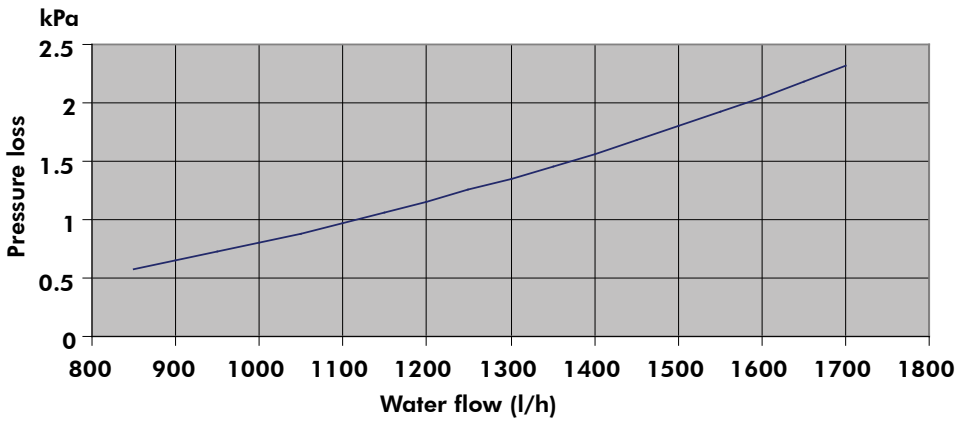
TECHNICAL SPECIFICATIONS

The tank is equipped with 2.5kW back-up electric heating resistance for 230 V single phase or 400 V three phase connection. Back-up electric resistances are required for Legionnaires Disease protection treatment.

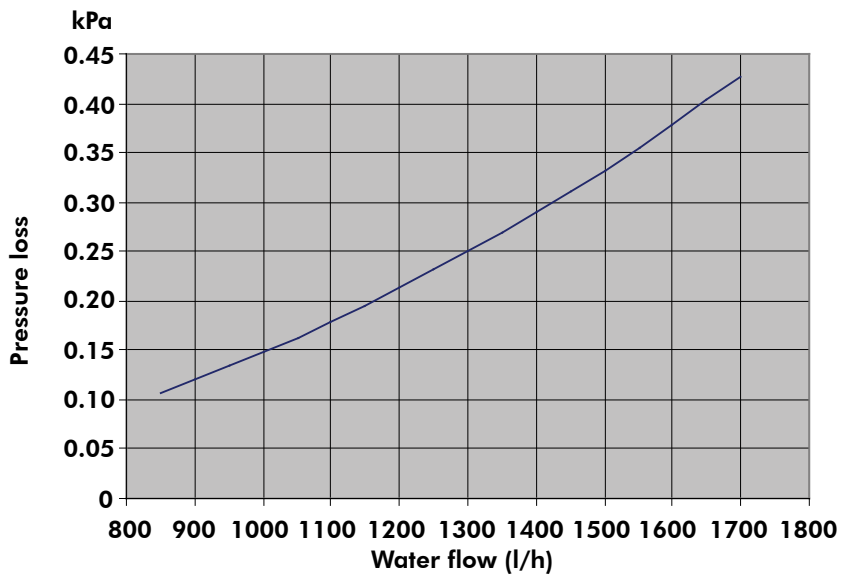
		230V / 1 Ph / 50Hz	400V / 3 Ph / 50Hz
Maximum current	A	15	5
Fuse - Gg	A	16	6
Max power supply cable section	mm^2	3G2.5	4G1.5

PRESSURE LOSS

DHW TANK
300l



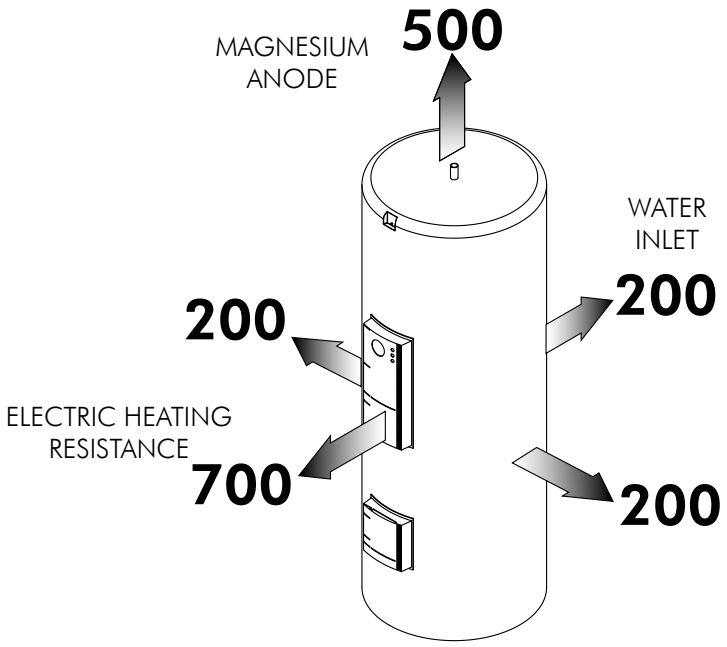
3-WAY-VALVE
HEATING/DHW



INSTALLATION

The Domestic Hot Water tank is not designed to withstand weights or stresses from adjacent equipment, pipe work or constructions. Any foreign weight or stress on the unit structure could lead to a malfunction or a collapse with dangerous consequences for personnel and property. In such an event, the warranty shall be null and void.

CLEARANCE

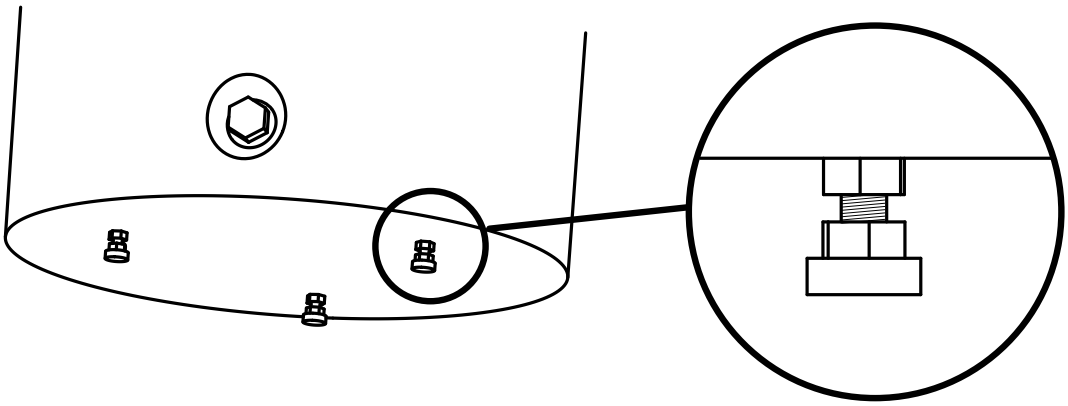


When installing the system take care to leave sufficient free space all around the tank for servicing operations. The indicated minimum free distances must be respected to ensure an easy access.

FITTING

The tank support must be installed as indicated in this manual. Unsuitable installation may cause risks of personal injury.

The domestic hot water tank must be installed on a stable and level foundation with sufficient strength to support its weight when full. It should stand freely on its pads without any other attachment.



HYDRAULIC LINKS TO THE CENTRAL HEATING LOOP

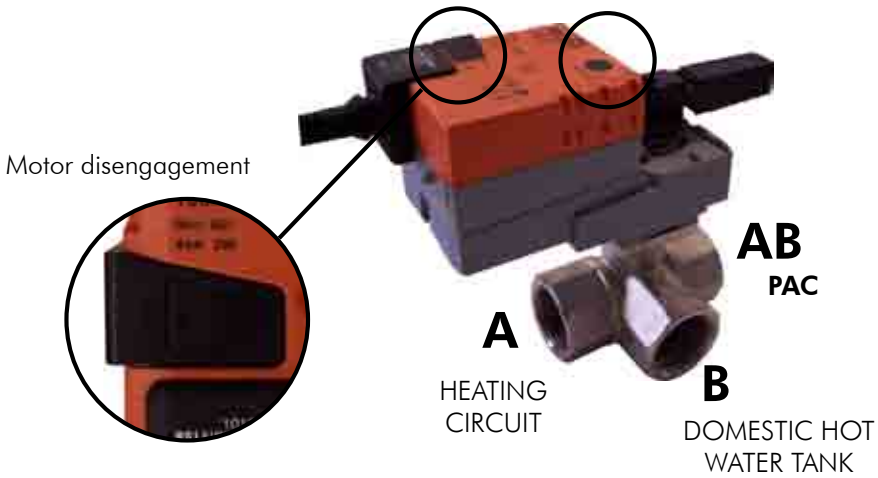
An On-Off 3-way valve directs hot water produced by the **PAC** to either the heating circuit or the domestic hot water tank. Hydraulic connections must be made in accordance with the circuit layout diagrams provided.

Warning: You must ensure that the 3-way valve orifices (marked A, B and AB) are connected correctly to the circuit in order for the valve to operate in accordance with the electrical diagram provided.

3-WAY HEATING / DOMESTIC HOT WATER VALVE

Fit the valve in accordance with the flow direction marks etched on the valve.

THE CONNECTIONS MUST CORRESPOND EXACTLY WITH THE FLOW DIRECTIONS INDICATED ON THE LAYOUT DIAGRAM FOR THE TYPE OF INSTALLATION.



Position the flow changeover control in the Y1 position.

ELECTRICAL CONNECTIONS AND INTERCONNECTIONS

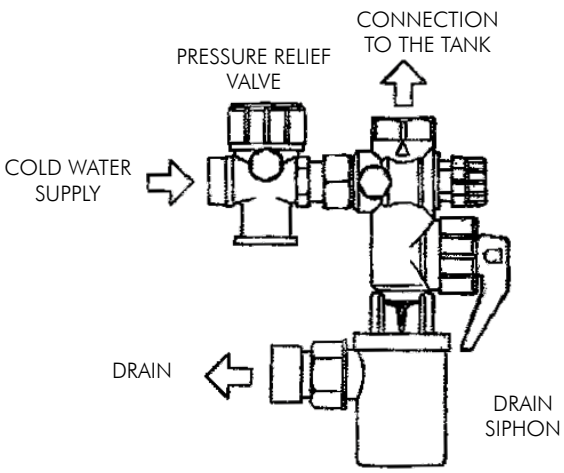
SEE APPENDIX

GENERAL INSTALLATION RECOMMENDATIONS

1. The domestic hot water circuit must be equipped with a pressure safety valve, set at a maximum of 8 bars.
2. The cold water supply connection must be equipped with the following valves as a minimum requirement, and fitted to the tank in the indicated order:
   - ➢ Stop cock.
   - ➢ Non-return valve.
   - ➢ Safety valve set at < 8 bars.

   When the main water pressure exceeds 5.25 bars, a pressure reduction valve must be installed upstream of the above-mentioned valves.

   "Domestic hot water safety modules" include the required valves in a single unit.



   Outflow from the safety valve must always be connected to a drainage system.

   Outflow or leakage from the safety module must always be allowed to drain freely. The water discharge pipe work must remain open to the atmosphere.
3. Once the tank is installed, first fill the domestic hot water system and pressurise it.
4. Once item 3 is completed, fill the **PAC**'s primary circuit.
5. Place the dielectric sleeves on the secondary circuit connections to avoid contact with the copper pipes.
6. Bleed the air from the circuits after filling with water.
7. It is normal to observe a volume of discharged water during heating (expansion). This volume of water can reach 3% of the water accumulator's capacity.
8. The safety valve must be operated at least once a month (by triggering the system drainage device).

DOMESTIC HOT WATER PRODUCTION REGULATION

The **PAC** controller manages domestic hot water production in accordance with the following operating modes:

- ➢ COMFORT MODE
  Domestic hot water production has priority over heating except when the ambiance temperature / set temperature difference is greater than 2° C (Maximum one hour).
- ➢ ECONOMY MODE
  Domestic hot water is produced during off-peak hours (dry contact) or in accordance with times programmed in the controller.
  Option: Possibility to restart domestic hot water production outside off-peak hours if the water temperature has reached a programmable minimum temperature.
- ➢ IMMEDIATE DOMESTIC HOT WATER PRODUCTION
  The **PAC**'s regulator enables domestic hot water production to be forced as required. At the end of the cycle, the system returns to its usual operating mode.

The Legionnaires' Disease protection treatment managed by the **PAC**'s controller is fully programmable (frequency, temperature threshold, treatment length).

This function requires the installation of the ambience terminal.

SERVICING CHECKLIST

ELECTRICAL EQUIPMENT

1. Check nominal current draw and the condition of the fuses.
2. Check the tightness of the screw terminals.
3. Perform a visual check of the condition of the contacts.
4. Check the general tightness of all cable connections.

HYDRAULIC CIRCUIT

1. Check that the hydraulic circuit is filled properly and that the fluid flows freely without any signs of leakage or air bubbles.

DOMESTIC HOT WATER TANK

1. Check the condition of the magnesium anode. The anode must be replaced if the indicator is in the red zone. Never install fixed cathodic protection anodes in combination with magnesium anodes.

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ANLAGE
ALLEGATO
ANEXO

APPENDIX

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ALLEGATO

DIMENSIONI III
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ANEXO

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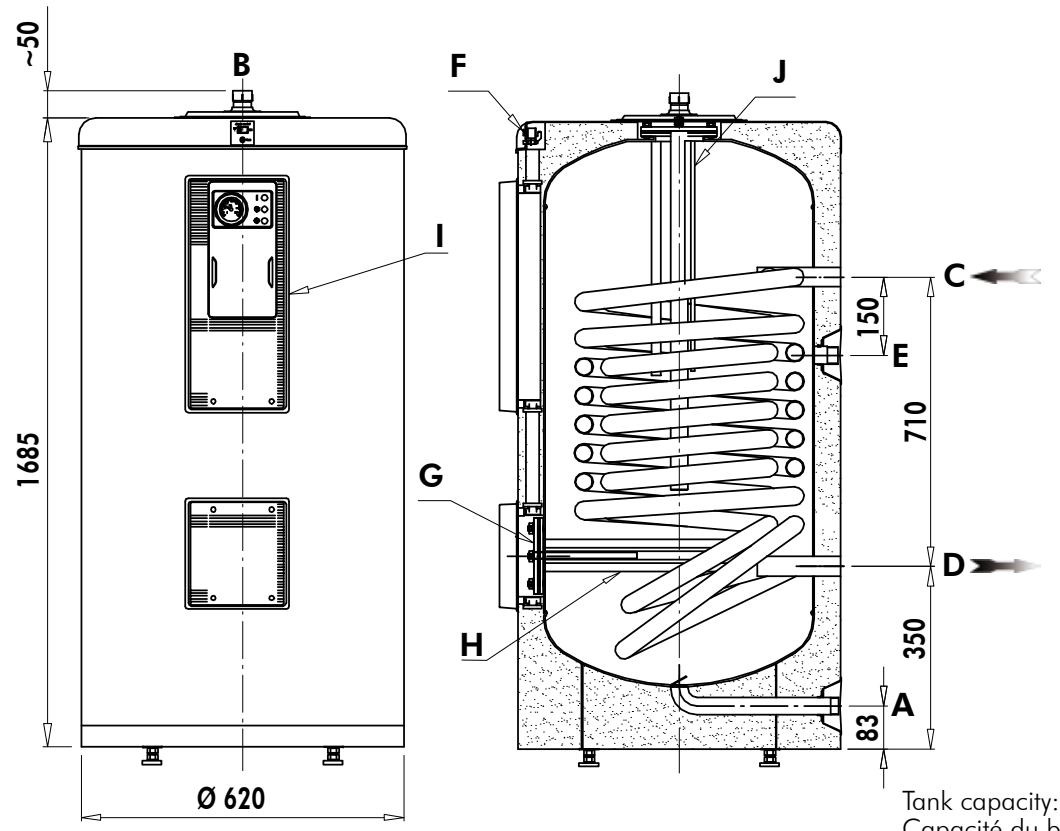
DIMENSIONS
DIMENSIONS
ABMESSUNGEN
DIMENSIONI
DIMENSIONES

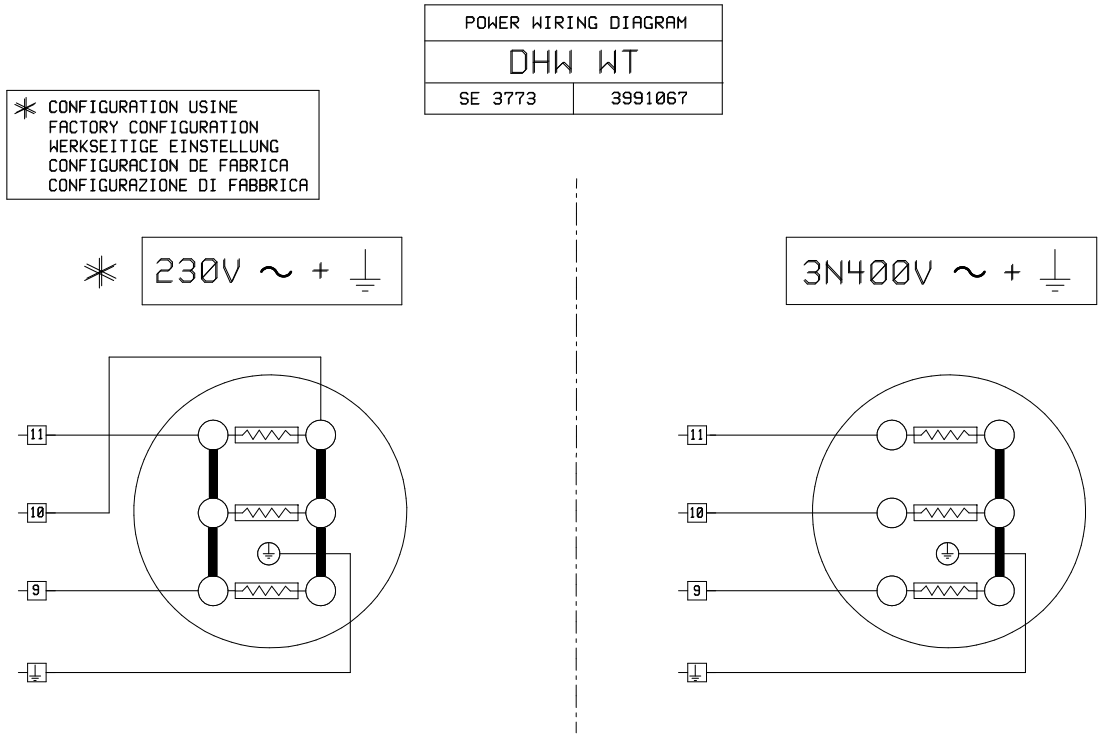


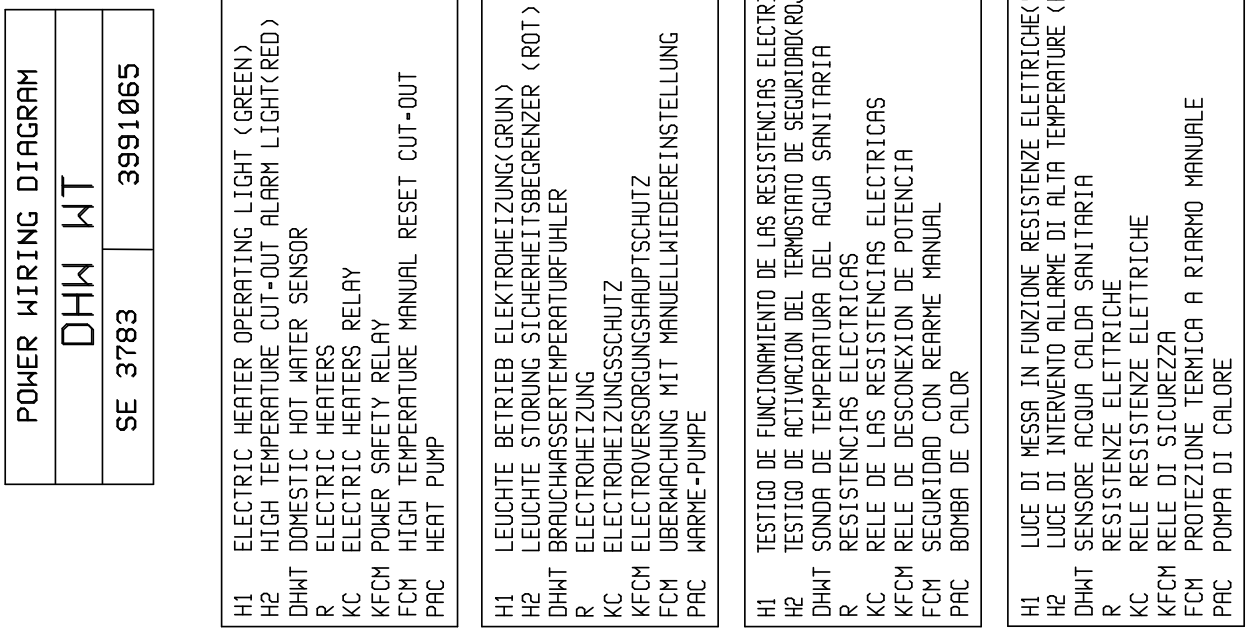
Tank capacity: 300l
Capacité du ballon: 300l
Speicherkapazität: 300l
Capacità della palla: 300l
Capacidad del acumulador: 300l

130 kg (dry weight) (à vide) (leer) (a vuoto) (en vacío)

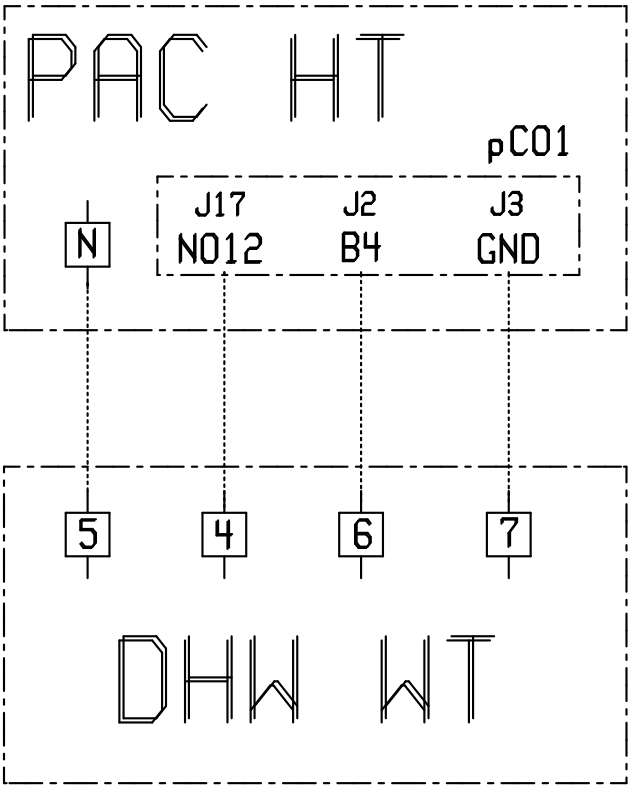
	GB	F	D	I	E
A	Cold water inlet 1" male	Entrée eau froide 1"gaz mâle	Kaltwassereintritt 1" Außengewinde Gas	Ingresso acqua fredda 1"gas maschio	Entrada de agua fría 1" gas macho
B	Domestic hot water outlet 1" male gas	Sortie eau chaude sanitaire 1"gaz mâle	Warmwasseraustritt 1" Außengewinde Gas	Uscita acqua calda sanitaria 1"gas maschio	Salida de agua caliente sanitaria 1" gas macho
C	Primary circuit inlet 1" female gas	Entrée circuit primaire 1"gaz femelle	Eintritt Primärkreislauf 1" Innengewinde Gas	Ingresso circuito primario 1"gas femmina	Entrada circuito primario 1" gas hembra
D	Primary circuit outlet 1" female gas	Sortie circuit primaire 1"gaz femelle	Austritt Primärkreislauf 1" Innengewinde Gas	Uscita circuito primario 1"gas femmina	Salida circuito primario 1" gas hembra
E	Recycling circuit (optional)	Circuit de recyclage (optionel)	Umwälzkreiskauf (Option)	Circuito di riciclo (opzionale)	Circuito de reciclaje (opcional)
F	Anode tester	Testeur d'anode	Anodenprüfgerät	Tester dell'anodo	Comprobador de ánodo
G	Resistance inspection hatch	Trappe de visite de la résistance	Schauklappe Heizwiderstand	Botola ispezione resistenza	Trampilla de inspección de la resistencia
H	Electric resistances	Résistances électriques	Elektroheizungen	Resistenze elettriche	Resistencias eléctricas
I	Control panel	Panneau de contrôle	Kontrolltafel	Pannello di controllo	Panel de control
J	Anodes	Anodes	Anoden	Anodi	Ánodos

ELECTRICAL CONNECTIONS AND INTERCONNECTIONS
RACCORDEMENTS ELECTRIQUES ET INTERCONNECTIONS
ELEKTRISCHE ANSCHLÜSSE UND VERBINDUNGEN
COLLEDAMENTI ELETTRICI E INTERCONNESSIONI
CONEXIONES ELÉCTRICAS E INTERCONEXIONES




POWER WIRING DIAGRAM
DHW WT
SE 3783
3991065
H1 ELECTRIC HEATER OPERATING LIGHT (GREEN)
H2 HIGH TEMPERATURE CUT-OUT ALARM LIGHT(RED)
DHWT DOMESTIC HOT WATER SENSOR
R ELECTRIC HEATERS
KC ELECTRIC HEATERS RELAY
KFCM POWER SAFETY RELAY
FCM HIGH TEMPERATURE MANUAL RESET CUT-OUT
PAC HEAT PUMP
H1 LEUCHTE BETRIEB ELEKTROHEIZUNG(GRUN)
H2 LEUCHTE STORUNG SICHERHEITSBEGRENZER (ROT)
DHWT BRAUCHWASSERTEMPERATURFUHLER
R ELECTROHEIZUNG
KC ELECTROHEIZUNGSSCHUTZ
KFCM ELECTROVERSORGUNGSHAUPTSCHUTZ
FCM UBERWACHUNG MIT MANUELLWIEDEREINSTELLUNG
PAC WARME-PUMPE
H1 TESTIGO DE FUNCIONAMIENTO DE LAS RESISTENCIAS ELECTRICAS(VERDE)
H2 TESTIGO DE ACTIVACION DEL TERMOSTATO DE SEGURIDAD(ROJO)
DHWT SONDA DE TEMPERATURA DEL AGUA SANITARIA
R RESISTENCIAS ELECTRICAS
KC RELE DE LAS RESISTENCIAS ELECTRICAS
KFCM RELE DE DESCONEXION DE POTENCIA
FCM SEGURIDAD CON REARME MANUAL
PAC BOMBA DE CALOR
H1 LUCE DI MESSA IN FUNZIONE RESISTENZE ELETTRICHE(VERDE)
H2 LUCE DI INTERVENTO ALLARME DI ALTA TEMPERATURE (ROSSO)
DHWT SENSORE ACQUA CALDA SANITARIA
R RESISTENZE ELETTRICHE
KC RELE RESISTENZE ELETTRICHE
KFCM RELE DI SICUREZZA
FCM PROTEZIONE TERMICA A RIARMO MANUALE
PAC POMPA DI CALORE
H1 VOYANT DE MARCHE DES RESISTANCES ELECTRIQUES(VERT)
H2 VOYANT DE DEFAUT DU THERMOSTAT DE SECURITE(ROUGE)
DHWT SONDE DE TEMPERATURE D'EAU SANITAIRE
R RESISTANCES ELECTRIQUES
KC RELAIS DES RESISTANCES ELECTRIQUES
KFCM RELAIS DE COUPURE DE LA PUISSANCE
FCM SECURITE A REARMEMENT MANUEL
PAC POMPE A CHALEUR
PAC
H1
H2
DHWT
FCM
KFCM
KC
3N400V ~ +
P-E L1 L2 L3
230V ~ +
P-E L N
R

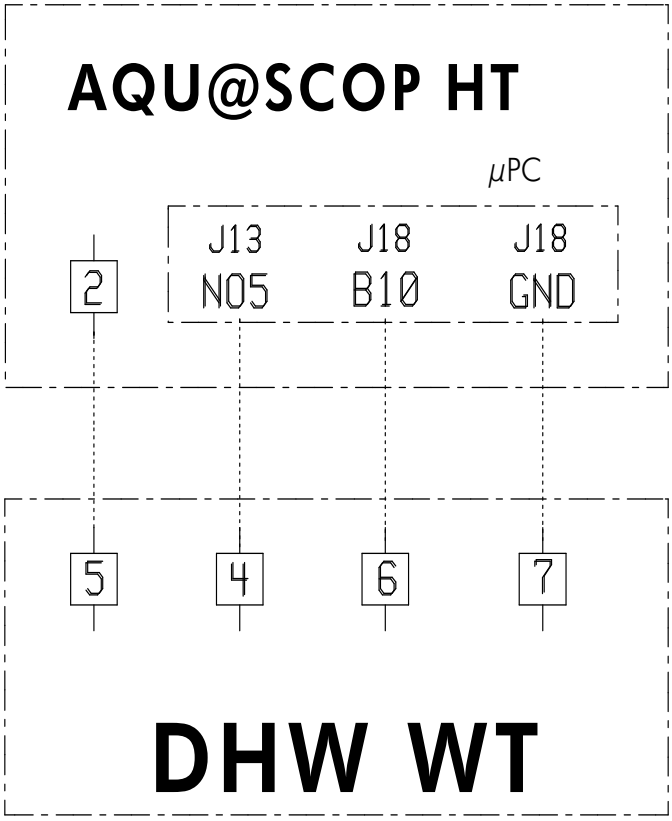
PAC HT



CONNECTION DIAGRAM
SE 3769

PCO1 DHW WT	REGULATEUR DE LA PAC HT BALLON D' EAU CHAUDE SANITAIRE
PCO1 DHW WT	PAC HT CONTROLLER DOMESTIC HOT WATER TANK
PCO1 DHW WT	KONTROLLEUR DES PAC HT BRAUCHWASSERVERSORGUNG
PCO1 DHW WT	CONTROLLO ELETTRONICO DEL PAC HT PALLA DI ACQUA CALDA SANITARIA
PCO1 DHW WT	CONTROL DE LA PAC HT ACUMULADOR DE AGUA CALIENTE SANITARIA

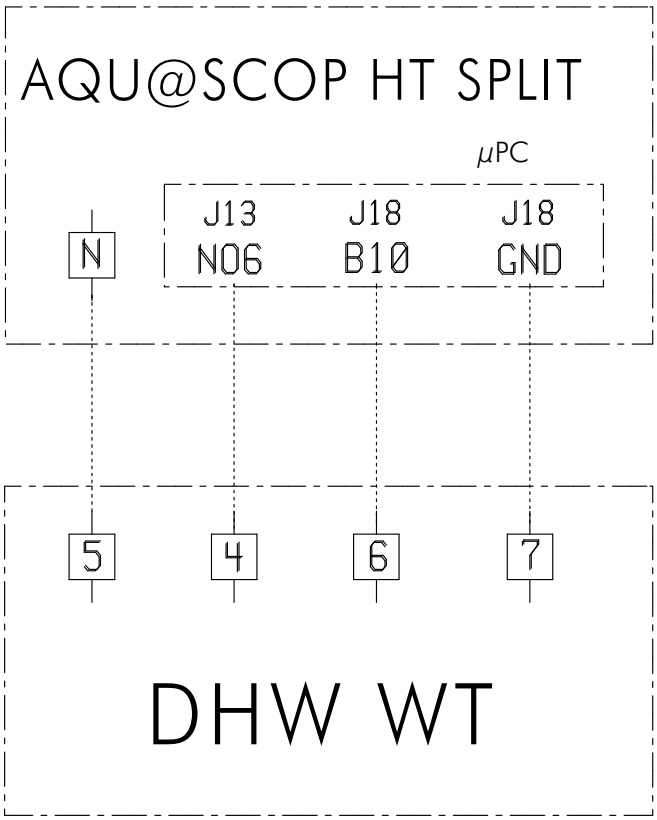
AQU@SCOP HT



CONNECTION DIAGRAM
SE 4285

µPC DHW WT	REGULATEUR DE L'AQU@SCOP HT BALLON D'EAU CHAUDE SANITAIRE
µPC DHW WT	AQU@SCOP HT CONTROLLER DOMESTIC HOT WATER TANK
µPC DHW WT	KONTROLLEUR DES AQU@SCOP HT BRAUCHWASSERVERSORGUNG
µPC DHW WT	CONTROLLO ELETTRONICO DEL AQU@SCOP HT PALLA DI ACQUA CALDA SANITARIA
µPC DHW WT	CONTROL DE LA AQU@SCOP HT ACUMULADOR DE AGUA CALIENTE SANITARIA

AQU@SCOP HT SPLIT



CONNECTION DIAGRAM
SE 4202

µPC REGULATEUR DE L'AQU@SCOP HT SPLIT
DHW WT BALLON D'EAU CHAUDE SANITAIRE

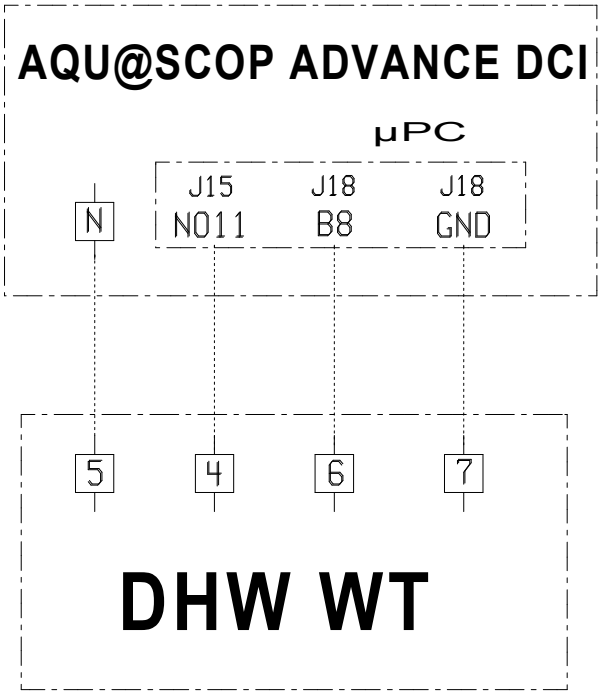
µPC AQU@SCOP HT SPLIT CONTROLLER
DHW WT DOMESTIC HOT WATER TANK

µPC KONTROLLEUR DES AQU@SCOP HT SPLIT
DHW WT BRAUCHWASSERVERSORGUNG

µPC CONTROLLO ELETTRONICO DEL AQU@SCOP HT SPLIT
DHW WT PALLA DI ACQUA CALDA SANITARIA

µPC CONTROL DE LA AQU@SCOP HT SPLIT
DHW WT ACUMULADOR DE AGUA CALIENTE SANITARIA

AQU@SCOP ADVANCE DCI



CONNECTION DIAGRAM
SE 4077

µPC REGULATEUR DE L'AQU@SCOP ADVANCE DCI
DHW WT BALLON D'EAU CHAUDE SANITAIRE

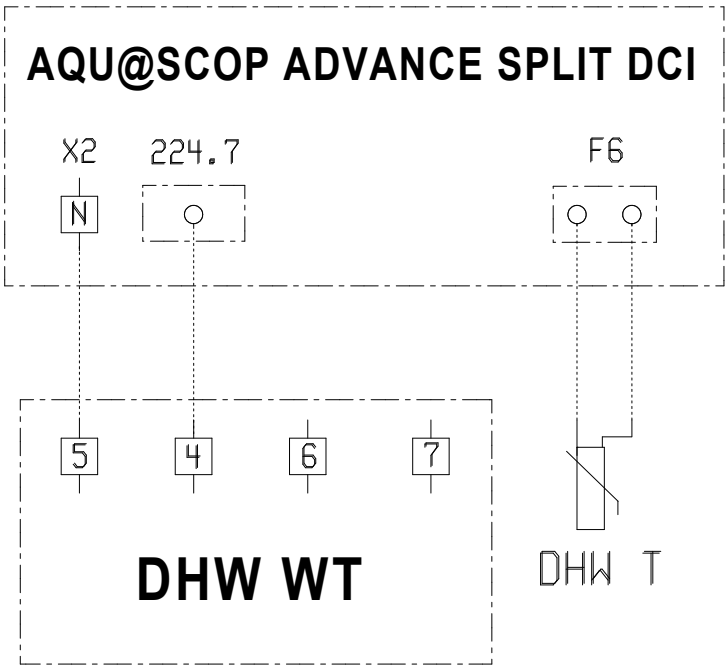
µPC AQU@SCOP ADVANCE DCI CONTROLLER
DHW WT DOMESTIC HOT WATER TANK

µPC KONTROLLEUR DES AQU@SCOP ADVANCE DCI
DHW WT BRAUCHWASSERVERSORGUNG

µPC CONTROLLO ELETTRONICO DEL AQU@SCOP ADVANCE DCI
DHW WT PALLA DI ACQUA CALDA SANITARIA

µPC CONTROL DE LA AQU@SCOP ADVANCE DCI
DHW WT ACUMULADOR DE AGUA CALIENTE SANITARIA

AQU@SCOP ADVANCE SPLIT DCI



CONNECTION DIAGRAM
SE 4078

DHW T SONDE DE TEMPERATURE D'EAU SANITAIRE
DHW WT BALLON D'EAU CHAUDE SANITAIRE

DHW T DOMESTIC HOT WATER SENSOR
DHW WT DOMESTIC HOT WATER TANK

DHW T BRAUCHWASSERTEMPERATURFUHLER
DHW WT BRAUCHWASSERVERSORGUNG

DHW T SENSORE ACQUA CALDA SANITARIA
DHW WT PALLA DI ACQUA CALDA SANITARIA

DHW T SONDA DE TEMPERATURA DEL AGUA SANITARIA
DHW WT ACUMULADOR DE AGUA CALIENTE SANITARIA

EC Compliance declaration

Under our own responsibility, we declare that the product designated in this manual comply with the provisions of the EEC directives listed hereafter and with the national legislation into which these directives have been transposed.

Déclaration CE de conformité

Nous déclarons sous notre responsabilité que les produits désignés dans la présente notice sont conformes aux dispositions des directives CEE énoncées ci- après et aux législations nationales les transposant.

EG-Konformitätserklärung

Wir erklarën in eigener Verantwortung, das die in der vorliegenden Beschreibung angegebenen Produkte den Bestimungen der nachstehend erwähnten EG-Richtlinien und den nationalen Gesetzesvorschriffen entsprechen, in denen diese Richtinien umgesetz sind.

Dichiarazione CE di conformità

Dichiariamo, assurmendone la responsasabilità, che i prodotti descritti nel presente manuale sono conformi alle disposizioni delle direttive CEE di cui sott e alle lagislazionni nazionali che li recepiscono

Declaración CE de conformidad

Declaramos, bajo nuestra responsabilidad, que los productos designados en este manual son conformes a las disposiciones de las directivas CEE enunuciadas a continuacion, asi como a las legislaciones nacionales que las contemplan.

Domestic hot water tank
Ballon d'eau chaude sanitaire
Brauchwasserversorgung
Palla di acqua calda sanitaria
Acumulador de agua caliente sanitaria

LOW VOLTAGE DIRECTIVE (DBT) 2006 / 95 / EEC

DIRECTIVE BASSE TENSION (DBT) 2006 / 95 / C.E.E.

RICHTLINIE NIERDERSPANNUNG (DBT) 2006 / 95 / EG

DIRETTIVA BASSA TENSIONE (DBT) 2006 / 95 / CEE

DIRECTIVA BAJA TENSION (DBT) 2006 / 95 / CEE

And that the following paragraphs of the harmonised standards have been applied.
Et que les paragraphes suivants les normes harmonisées ont été appliqués.
Und dass die folgenden Paragraphen der vereinheitlichten Normen Angewandt wurden.
E che sono stati applicati i seguenti paragraphi delle norme armonnizzate.
Y que se han aplicado los siguientes apartados de las normas armonizadas.

EN 60 335-1 + A1 + A11 + A12

EN 60 335-2-21 + A21

A Thilières sur Avre
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Le: 15/07/2009
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