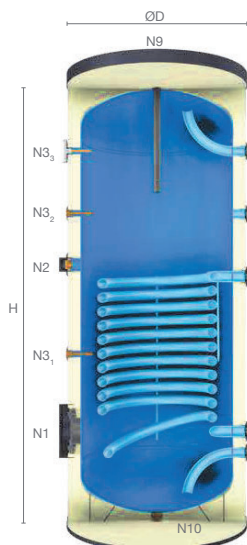


11.11

KBS SINGLE COIL WATER HEATER

KODSAN



Volume
100L-3000L

Maximum Heating Power
272 kW_h

Maximum Solar Collector Area
87 m²

Heat Exchanger Maximum Operation Temperature
110°C

Heat Exchanger Maximum Operation Pressure
10 bar

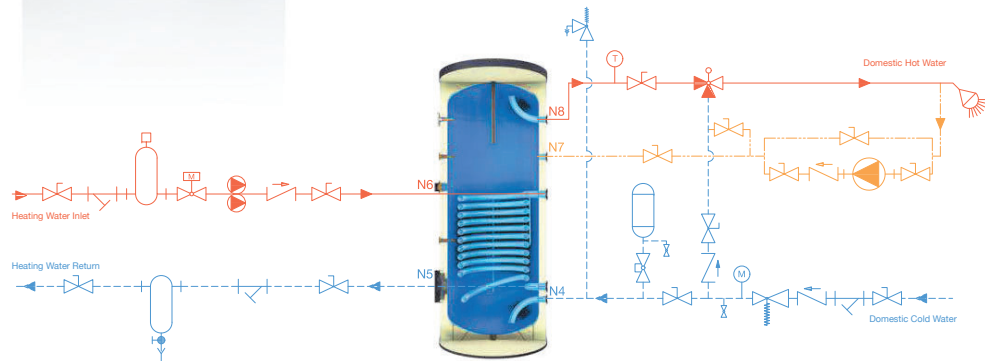
Domestic Hot Water Maximum Operation Temperature
95°C

Domestic Hot Water Maximum Operation Pressure
10 bar

Inner Surface Coating
Tank inner surface is enamelled (glass-lined) in accordance with DIN 4753-3 standard.

Manufactured in accordance with 2014/68/EU Pressure Equipment Directive, TS EN 13445-3, TS736 and TS EN 12897 standards.

INSTALLATION DIAGRAM



Relief valves with membrane should be installed at higher level than top of the tank.
Thus it is protected against high temperature and calcification and it is not necessary to discharge the tank when working on the relief valve.
The installation diagram shown above is just an example. The installation must be done according to updated standards and instructions.

| | | 100L-500L | 800L-1000L | 1500L-2000L | 2500L-3000L |
|-----------------------------|--|-----------------|-----------------|---------------------------|-----------------|
| INSULATION | PU- 42kg/m ³ HCFC-free polyurethane in accordance with the 814/2013 EU ErP Commission Regulations and TS EN 12897 Standards | STD/50 mm | x | x | x |
| | Soft PU- 15 kg/m ³ soft polyurethane | x | STD / 80mm | STD / 80mm | STD / 80mm |
| | Soft PU- 26 kg/m ³ flame retardant soft polyurethane | x | OPS / 80mm | OPS / 80mm | OPS / 80mm |
| | Izomax- 50kg/m ³ insulation with d0 fire class as well as with BL-S3 compatible with the ErP regulations following the 814/2013 EU Commission Regulations and TS EN 12897 Standards | x | OPS / 80mm | OPS / 80mm OPS / 100mm | OPS / 80mm |
| COATING | Blueshell- Polyethylene cover that provides heat-saving | STD | x | x | x |
| | Vinleks- Artificial Leather | x | STD | STD | STD |
| | Izoqua- Waterproof PVC unit which is suitable for exterior usage. (Optional only with the izomax insulation application) | x | OPS | OPS | OPS |
| EQUIPMENT | Thermometer (0°C- 120°C) | STD/Ø63 | STD/Ø100 | STD/Ø100 | STD/Ø100 |
| | Sensor Tube | STD/½" 2 pieces | STD/½" 2 pieces | STD/½" 2 pieces | STD/½" 2 pieces |
| | Cleaning & Control Flange | STD/4" | STD/5" OPS/16" | STD/5" OPS/16" | STD/5" OPS/16" |
| | Electric Heater | OPS/1½" | OPS/2" | OPS/2" | OPS/2" |
| CARRIER CATHODIC PROTECTION | Magnesium Anode | STD | STD | STD | STD |
| | Electronic Anode | OPS | OPS | OPS | OPS |
| | Steel leg system mounted on a palette from 3 different locations | STD | STD | STD-x | x |
| | Circle steel leg system that provides circular floor contact | x | x | x-STD | STD |

STD: Abbreviation for spare parts and equipments which belong to the standard products.
OPS: Abbreviation for the optional spare parts and equipments for non-standard products.

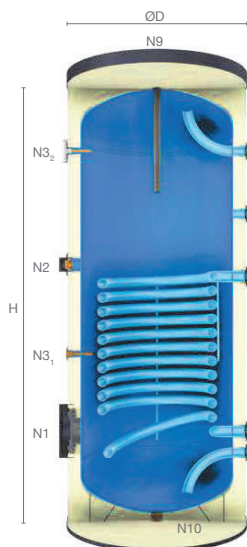
| | Code | Unit | 11.11.11 | 11.11.13 | 11.11.14 | 11.11.16 | 11.11.18 | 11.11.20 | 11.11.21 | 11.11.22 | 11.11.23 | 11.11.24 | 11.11.25 |
|--|-------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Capacity | V | lt | 100 | 160 | 200 | 300 | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 |
| Insulation Type & Thickness | i | mm | PU/50 | PU/50 | PU/50 | PU/50 | PU/50 | SPU/80 | SPU/80 | SPU/80 | SPU/80 | SPU/80 | SPU/80 |
| Diameter | ØD | mm | 480 | 580 | 580 | 580 | 740 | 910 | 1010 | 1120 | 1310 | 1460 | 1460 |
| Height | H | mm | 1110 | 1135 | 1340 | 1860 | 1845 | 2110 | 2070 | 2375 | 2280 | 2160 | 2580 |
| Cleaning & Control Flange Connection | N1 | inch | 4" | 4" | 4" | 4" | 4" | 5" | 5" | 5" | 5" | 5" | 5" |
| Electric Heater Connection | N2 | inch | 1½" | 1½" | 1½" | 1½" | 1½" | 2" | 2" | 2" | 2" | 2" | 2" |
| Thermometer & Sensor Connections | N3 | inch | ½" | ½" | ½" | ½" | ½" | ½" | ½" | ½" | ½" | ½" | ½" |
| Domestic Cold Water Inlet Connection | N4 | inch | ¾" | ¾" | ¾" | ¾" | 1" | 1¼" | 1¼" | 1¼" | 1¼" | 1½" | 1½" |
| Heat Exchanger (Coil) Inlet/Outlet Connections | N5-N6 | inch | 1" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1½" | 1½" |
| Circulation Return Connection | N7 | inch | ¾" | ¾" | ¾" | ¾" | ¾" | 1¼" | 1¼" | 1¼" | 1¼" | 1½" | 1½" |
| Domestic Hot Water Outlet Connection | N8 | inch | ¾" | ¾" | ¾" | ¾" | 1" | 1¼" | 1¼" | 1¼" | 1¼" | 1½" | 1½" |
| Magnesium Anode Connection | N9 | inch | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" |
| Blind Connection | N10 | inch | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" | 2" | 2" | 2" | 2" |
| Gross Weight | G | kg | 52 | 75 | 88 | 98 | 150 | 245 | 260 | 360 | 455 | 650 | 735 |
| Tilt Height | R | mm | 1210 | 1275 | 1460 | 1950 | 1990 | 2300 | 2305 | 2625 | 2630 | 2610 | 2965 |

The table shown above is prepared based on spare parts and equipments which belong to the standard products; all products have internal thread connection.

KODSAN reserves the right to change the product specifications, technical information and installation diagrams without any notifications.
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11.12 KBS-B BASIC SINGLE COIL WATER HEATER

KODSAN



Volume
100L-500L

Maximum Heating Power
66 kW_{th}

Maximum Solar Collector Area
19 m²

Heat Exchanger Maximum Operation Temperature
110°C

Heat Exchanger Maximum Operation Pressure
10 bar

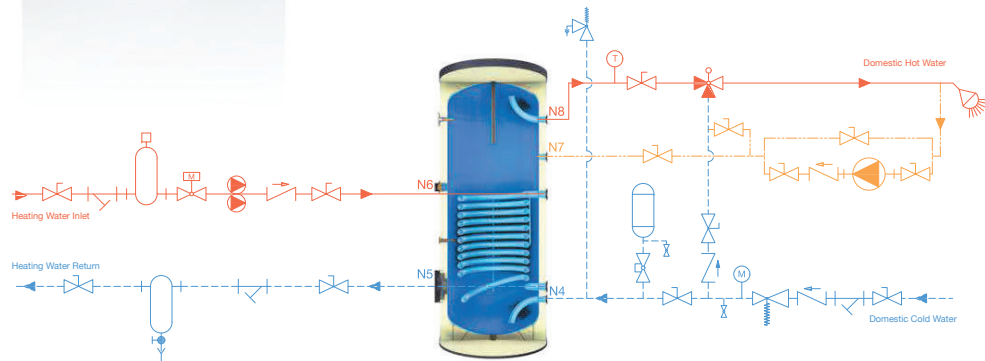
Domestic Hot Water Maximum Operation Temperature
95°C

Domestic Hot Water Maximum Operation Pressure
6bar / 10 bar

Inner Surface Coating
Tank inner surface is enamelled (glass-lined) in accordance with DIN 4753-3 standard.

Manufactured in accordance with 2014/68/EU Pressure Equipment Directive, TS EN 13445-3, TS736 and TS EN 12897 standards.

INSTALLATION DIAGRAM



Relief valves with membrane should be installed at higher level than top of the tank.
Thus it is protected against high temperature and calcification and it is not necessary to discharge the tank when working on the relief valve.
The installation diagram shown above is just an example. The installation must be done according to updated standards and instructions.

100L-500L

| | | |
|-----------------------------|--|----------------|
| INSULATION | PU- 42kg/m ³ HCFC-free polyurethane in accordance with the 814/2013 EU ErP Commission Regulations and TS EN 12897 Standards | STD/50 mm |
| | Soft PU- 15 kg/m ³ soft polyurethane | x |
| | Soft PU- 26 kg/m ³ flame retardant soft polyurethane | x |
| | Izomax- 50kg/m ³ insulation with d0 fire class as well as with BL-S3 compatible with the ErP regulations following the 814/2013 EU Commission Regulations and TS EN 12897 Standards | x |
| COATING | Blueshell- Polyethylene cover that provides heat-saving | STD |
| | Vinleks- Artificial Leather | x |
| | Izoqua- Waterproof PVC unit which is suitable for exterior usage. (Optional only with the izomax insulation application) | x |
| EQUIPMENT | Thermometer (0°C- 120°C) | STD/Ø63 |
| | Sensor Tube | STD/½" 1 piece |
| | Cleaning & Control Flange | STD/4" |
| | Electric Heater | OPS/1½" |
| CARRIER CATHODIC PROTECTION | Magnesium Anode | STD |
| | Electronic Anode | OPS |
| | Steel leg system mounted on a palette from 3 different locations | STD |
| | Circle steel leg system that provides circular floor contact | x |

STD: Abbreviation for spare parts and equipments which belong to the standard products.
OPS: Abbreviation for the optional spare parts and equipments for non-standard products.

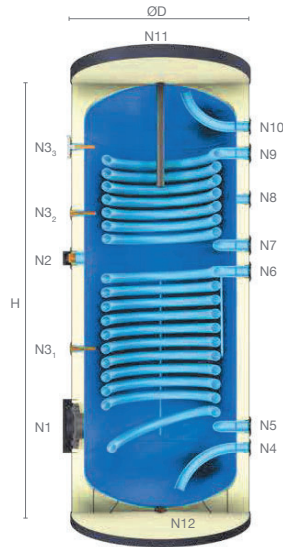
| | Code | Unit | 11.12.11 | 11.12.13 | 11.12.14 | 11.12.16 | 11.12.18 |
|--|-------|------|----------|----------|----------|----------|----------|
| Capacity | V | lt | 100 | 160 | 200 | 300 | 500 |
| Insulation Type & Thickness | i | mm | PU/50 | PU/50 | PU/50 | PU/50 | PU/50 |
| Diameter | ØD | mm | 480 | 580 | 580 | 580 | 740 |
| Height | H | mm | 1110 | 1135 | 1340 | 1860 | 1845 |
| Cleaning & Control Flange Connection | N1 | inch | 4" | 4" | 4" | 4" | 4" |
| Electric Heater Connection | N2 | inch | 1½" | 1½" | 1½" | 1½" | 1½" |
| Thermometer & Sensor Connections | N3 | inch | ½" | ½" | ½" | ½" | ½" |
| Domestic Cold Water Inlet Connection | N4 | inch | ¾" | ¾" | ¾" | 1" | 1" |
| Heat Exchanger (Coil) Inlet/Outlet Connections | N5-N6 | inch | 1" | 1¼" | 1¼" | 1¼" | 1¼" |
| Circulation Return Connection | N7 | inch | ¾" | ¾" | ¾" | ¾" | ¾" |
| Domestic Hot Water Outlet Connection | N8 | inch | ¾" | ¾" | ¾" | 1" | 1" |
| Magnesium Anode Connection | N9 | inch | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" |
| Blind Connection | N10 | inch | 1¼" | 1¼" | 1¼" | 1¼" | 1¼" |
| Gross Weight | G | kg | 52 | 68 | 76 | 98 | 135 |
| Tilt Height | R | mm | 1210 | 1275 | 1460 | 1950 | 1990 |

The table shown above is prepared based on spare parts and equipments which belong to the standard products; all products have internal thread connection.

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11.13 KBD DOUBLE COIL WATER HEATER

KODSAN



Volume
160L-3000L

Upper Heat Exchanger Maximum Heating Power
141 kW_h

Lower Heat Exchanger Maximum Heating Power
272 kW_h

Maximum Solar Collector Area
87 m²

Heat Exchanger Maximum Operation Temperature
110°C

Heat Exchanger Maximum Operation Pressure
10 bar

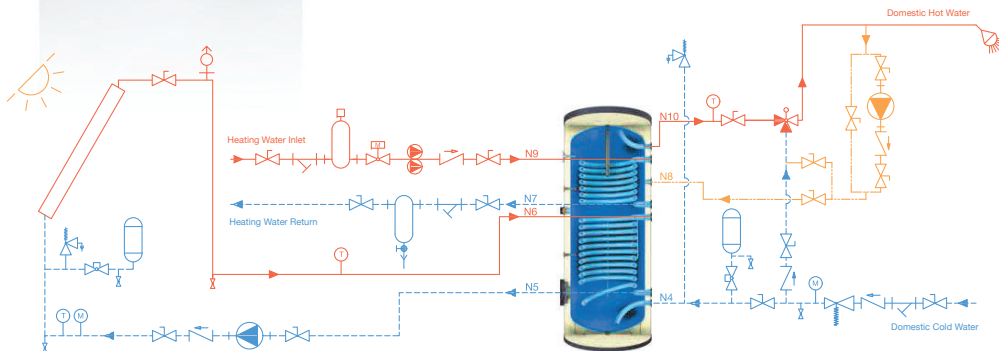
Domestic Hot Water Maximum Operation Temperature
95°C

Domestic Hot Water Maximum Operation Pressure
10 bar

Inner Surface Coating
Tank inner surface is enamelled (glass-lined) in accordance with DIN 4753-3 standard.

Manufactured in accordance with 2014/68/EU Pressure Equipment Directive, TS EN 13445-3, TS736 and TS EN 12897 standards.

INSTALLATION DIAGRAM



Relief valves with membrane should be installed at higher level than top of the tank.
Thus it is protected against high temperature and calcification and it is not necessary to discharge the tank when working on the relief valve.
The installation diagram shown above is just an example. The installation must be done according to updated standards and instructions.

| | | 160L-500L | 800L-1000L | 1500L-2000L | 2500L-3000L |
|----------------------------|--|-------------------|-------------------|---------------------------|-------------------|
| INSULATION | PU- 42kg/m ³ HCFC-free polyurethane in accordance with the 814/2013 EU ErP Commission Regulations and TS EN 12897 Standards | STD/50 mm | x | x | x |
| | Soft PU- 15 kg/m ³ soft polyurethane | x | STD / 80mm | STD / 80mm | STD / 80mm |
| | Soft PU- 26 kg/m ³ flame retardant soft polyurethane | x | OPS / 80mm | OPS / 80mm | OPS / 80mm |
| | Izomax- 50kg/m ² insulation with d0 fire class as well as with BL-S3 compatible with the ErP regulations following the 814/2013 EU Commission Regulations and TS EN 12897 Standards | x | OPS / 80mm | OPS / 80mm OPS / 100mm | OPS / 80mm |
| COATING | Blueshell- Polyethylene cover that provides heat-saving | STD | x | x | x |
| | Vinleks- Artificial Leather | x | STD | STD | STD |
| | Izoqua- Waterproof PVC unit which is suitable for exterior usage. (Optional only with the izomax insulation application) | x | OPS | OPS | OPS |
| EQUIPMENT | Thermometer (0°C- 120°C) | STD/Ø63 | STD/Ø100 | STD/Ø100 | STD/Ø100 |
| | Sensor Tube | STD/1/2" 2 pieces | STD/1/2" 2 pieces | STD/1/2" 2 pieces | STD/1/2" 2 pieces |
| | Cleaning & Control Flange | STD/4" | STD/5" OPS/16" | STD/5" OPS/16" | STD/5" OPS/16" |
| | Electric Heater | OPS/1 1/2" | OPS/2" | OPS/2" | OPS/2" |
| CATHODIC PROTECTION | Magnesium Anode | STD | STD | STD | STD |
| | Electronic Anode | OPS | OPS | OPS | OPS |
| CARRIER ELEMENT CONNECTION | Steel leg system mounted on a palette from 3 different locations | STD | STD | STD-x | x |
| | Circle steel leg system that provides circular floor contact | x | x | x-STD | STD |

STD: Abbreviation for spare parts and equipments which belong to the standard products.
OPS: Abbreviation for the optional spare parts and equipments for non-standard products.

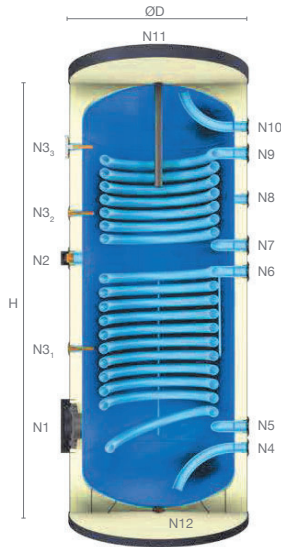
| | Code | Unit | 11.13.13 | 11.13.14 | 11.13.16 | 11.13.18 | 11.13.20 | 11.13.21 | 11.13.22 | 11.13.23 | 11.13.24 | 11.13.25 |
|--|-------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Capacity | V | lt | 160 | 200 | 300 | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 |
| Insulation Type & Thickness | i | mm | PU/50 | PU/50 | PU/50 | PU/50 | SPU/80 | SPU/80 | SPU/80 | SPU/80 | SPU/80 | SPU/80 |
| Diameter | ØD | mm | 580 | 580 | 580 | 740 | 910 | 1010 | 1120 | 1310 | 1460 | 1460 |
| Height | H | mm | 1135 | 1340 | 1860 | 1845 | 2110 | 2070 | 2375 | 2280 | 2180 | 2580 |
| Cleaning & Control Flange Connection | N1 | inch | 4" | 4" | 4" | 4" | 5" | 5" | 5" | 5" | 5" | 5" |
| Electric Heater Connection | N2 | inch | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Thermometer & Sensor Connections | N3 | inch | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Domestic Cold Water Inlet Connection | N4 | inch | 3/4" | 3/4" | 3/4" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" |
| Lower Heat Exchanger (Coil) Inlet/Outlet Connections | N5-N6 | inch | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" |
| Upper Heat Exchanger (Coil) Inlet/Outlet Connections | N7-N9 | inch | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" |
| Circulation Return Connection | N8 | inch | 3/4" | 3/4" | 3/4" | 3/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" |
| Domestic Hot Water Outlet Connection | N10 | inch | 3/4" | 3/4" | 3/4" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" |
| Magnesium Anode Connection | N11 | inch | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| Blind Connection | N12 | inch | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 2" | 2" | 2" | 2" |
| Gross Weight | G | kg | 82 | 91 | 104 | 178 | 275 | 290 | 390 | 500 | 720 | 805 |
| Tilt Height | R | mm | 1275 | 1460 | 1950 | 1990 | 2300 | 2305 | 2625 | 2630 | 2610 | 2965 |

The table shown above is prepared based on spare parts and equipments which belong to the standard products; all products have internal thread connection.

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11.14 KBD-B BASIC DOUBLE COIL WATER HEATER

KODSAN



Volume
160L-500L

Upper Heat Exchanger Maximum Heating Power
41 kW_{th}

Lower Heat Exchanger Maximum Heating Power
55 kW_{th}

Maximum Solar Collector Area
29 m²

Heat Exchanger Maximum Operation Temperature
110°C

Heat Exchanger Maximum Operation Pressure
10 bar

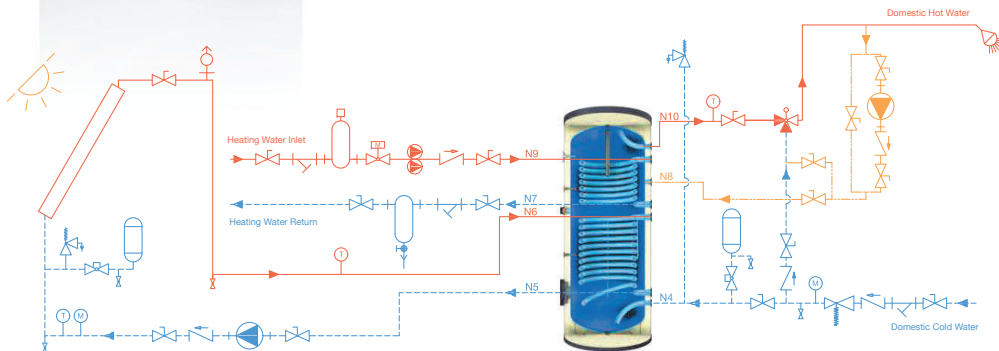
Domestic Hot Water Maximum Operation Temperature
95°C

Domestic Hot Water Maximum Operation Pressure
6 bar / 10 bar

Inner Surface Coating
Tank inner surface is enamelled (glass-lined) in accordance with DIN 4753-3 standard.

Manufactured in accordance with 2014/68/EU Pressure Equipment Directive, TS EN 13445-3, TS736 and TS EN 12897 standards.

INSTALLATION DIAGRAM



Relief valves with membrane should be installed at higher level than top of the tank.
Thus it is protected against high temperature and calcification and it is not necessary to discharge the tank when working on the relief valve.
The installation diagram shown above is just an example. The installation must be done according to updated standards and instructions.

160L-500L

| | | |
|--------------------------|--|-----------------|
| INSULATION | PU- 42kg/m ³ HCFC-free polyurethane in accordance with the 814/2013 EU ErP Commission Regulations and TS EN 12897 Standards | STD/50 mm |
| | Soft PU- 15 kg/m ³ soft polyurethane | x |
| | Soft PU- 26 kg/m ³ flame retardant soft polyurethane | x |
| COATING | Izomax- 50kg/m ² insulation with d0 fire class as well as with BL-S3 compatible with the ErP regulations following the 814/2013 EU Commission Regulations and TS EN 12897 Standards | x |
| | Blueshell- Polyethylene cover that provides heat-saving | STD |
| | Vinleks- Artificial Leather | x |
| EQUIPMENT | Izoqua- Waterproof PVC unit which is suitable for exterior usage. (Optional only with the izomax insulation application) | x |
| | Thermometer (0°C- 120°C) | STD/Ø63 |
| | Sensor Tube | STD/½" 2 pieces |
| CARRIER ELEMENT POSITION | Cleaning & Control Flange | STD/4" |
| | Electric Heater | OPS/1½" |
| | Magnesium Anode | STD |
| CARRIER ELEMENT POSITION | Electronic Anode | OPS |
| | Steel leg system mounted on a palette from 3 different locations | STD |
| | Circle steel leg system that provides circular floor contact | x |

STD: Abbreviation for spare parts and equipments which belong to the standard products.
OPS: Abbreviation for the optional spare parts and equipments for non-standart products.

| | Code | Unit | 11.14.13 | 11.14.14 | 11.14.16 | 11.14.18 |
|--|-------|------|----------|----------|----------|----------|
| Capacity | V | lt | 160 | 200 | 300 | 500 |
| Insulation Type & Thickness | i | mm | PU/50 | PU/50 | PU/50 | PU/50 |
| Diameter | ØD | mm | 580 | 580 | 580 | 740 |
| Height | H | mm | 1135 | 1340 | 1860 | 1845 |
| Cleaning & Control Flange Connection | N1 | inch | 4" | 4" | 4" | 4" |
| Electric Heater Connection | N2 | inch | 1½" | 1½" | 1½" | 1½" |
| Thermometer & Sensor Connections | N3 | inch | ½" | ½" | ½" | ½" |
| Domestic Cold Water Inlet Connection | N4 | inch | ¾" | ¾" | 1" | 1" |
| Lower Heat Exchanger (Coil) Inlet/Outlet Connections | N5-N6 | inch | 1¼" | 1¼" | 1¼" | 1¼" |
| Upper Heat Exchanger (Coil) Inlet/Outlet Connections | N7-N9 | inch | 1¼" | 1¼" | 1¼" | 1¼" |
| Circulation Return Connection | N8 | inch | ¾" | ¾" | ¾" | ¾" |
| Domestic Hot Water Outlet Connection | N10 | inch | ¾" | ¾" | 1" | 1" |
| Magnesium Anode Connection | N11 | inch | 1¼" | 1¼" | 1¼" | 1¼" |
| Blind Connection | N12 | inch | 1¼" | 1¼" | 1¼" | 1¼" |
| Gross Weight | G | kg | 80 | 87 | 104 | 155 |
| Tilt Height | R | mm | 1275 | 1460 | 1950 | 1990 |

The table shown above is prepared based on spare parts and equipments which belong to the standard products; all products have internal thread connection.

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