

Ground source storage

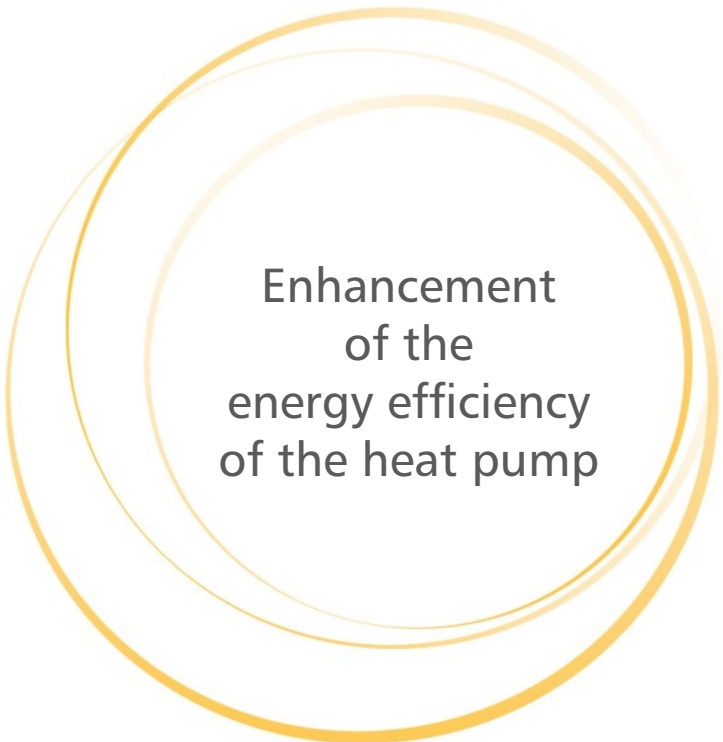


IS-ES ground source storage register

Application :

- ▶ Source for heat pumps
- ▶ Heating and cooling
- ▶ Domestic, industrial and hotel buildings
- ▶ New construction and extension

- ▶ Suitable for solar-thermal charging, therefore a high level use of renewable energy
- ▶ Patented register system for ground heat exchangers located under the building
- ▶ The welding method assures a simple and quick installation
- ▶ Various sizes for a wide application range
- ▶ Use of high-quality ecological materials
- ▶ High level use of environmental energy
- ▶ Patented connection between registers
- ▶ Temperature resistant up to 65 °C
- ▶ High transmission power
- ▶ Quick installation
- ▶ Versatile use



Enhancement
of the
energy efficiency
of the heat pump

Tested:

IS-ES Ground source storage register

| Width 56 cm | Tube separation RA 7 cm | | | | |
|------------------------|-------------------------|-----------|-----------|-----------|-----------|
| Available length in cm | 50 | 80 | 120 | 180 | 230 |
| Area in m ² | 0,28 | 0,45 | 0,67 | 1 | 1,29 |
| Water content in l | 0,38 | 0,47 | 0,59 | 0,78 | 0,93 |
| Product no. | 1900 0095 | 1900 0094 | 1900 0093 | 1900 0092 | 1930 0001 |

| Width 112 cm | Tube separation RA 7 cm | | | | |
|------------------------|-------------------------|-----------|-----------|-----------|-----------|
| Available length in cm | 50 | 80 | 120 | 180 | 230 |
| Area in m ² | 0,56 | 0,89 | 1,34 | 2,02 | 2,58 |
| Water content in l | 0,76 | 0,94 | 1,19 | 1,56 | 1,87 |
| Product no. | 1900 0100 | 1900 0099 | 1900 0098 | 1900 0097 | 1930 0002 |

| Accessories | Product no. |
|---|-------------|
| Angle 16 mm l/A 90°, black | 6531 6006 |
| Angle 16 mm l/l 90°, black | 6531 6007 |
| Angle 16 mm l/A 45°, black | 6531 6005 |
| Angle 16 mm l/l 45°, black | 6531 6004 |
| Cap 16 mm, black | 6531 6001 |
| Sleeve 16 mm, black | 6531 6002 |
| Plug 16 mm, black | 6531 6003 |
| Rolled pipe PE-RT 16 x 2 mm, roll 200 m | 1900 0118 |
| Length pipe PE-RT 16 x 2 mm, length 3 m | 1900 0119 |
| Rolled pipe PE-RT 20 x 2 mm, roll 200 m | 1900 0158 |



Connection technique:

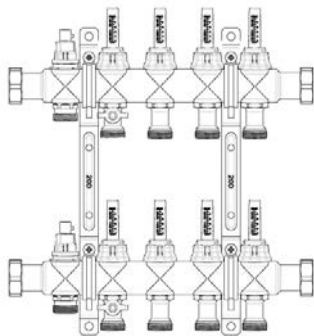


| Material | |
|----------------------------------|----------------------------|
| Type | PEOC Plus PE-RT 63, orange |
| Operating pressure / temperature | max. 6 bar / max. 55 °C |
| Operating pressure / temperature | max. 4 bar / max. 65 °C |
| System temperature heating | 24 - 30 °C |
| System temperatur cooling | 16 - 22 °C |
| Welding temperature | 235 °C |

| Hydraulics | |
|----------------------------------|--|
| Area of IS-ES-register | Recommended area IS-ES register max. 13 m ² |
| Length of connection tube (16x2) | Recommended length of supply and return max. 30 m each |

| Connetions | |
|------------|-------------------|
| Supply | 16 mm ext. thread |
| Return | 16 mm int. thread |

IS-Soleverteiler Ground source distributor



IS-Soleverteiler Distributor for ERS ground source storage

Application:

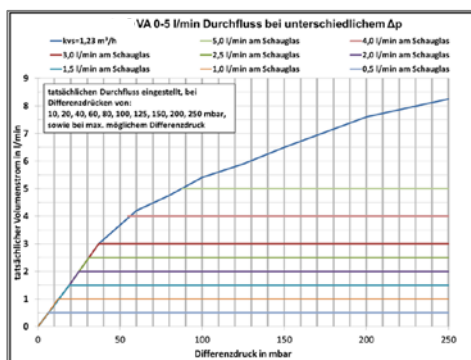
- ▶ Ground source storage
- ▶ Heating and cooling
- ▶ New construction and refurbishment
- ▶ Domestic, industrial and hotel buildings

- ▶ Distributor for ground heat exchangers
- ▶ Distributor with supply and return made of stainless steel
- ▶ Includes 0-5l/min flow meter in supply and return
- ▶ Includes ball valve and plugs DN25
- ▶ Emptying valve 1/2"
- ▶ Primary connection horizontal

| Material | |
|----------------------------------|--|
| Type | Stainless steel VA 1.4301 DN32 |
| Max. heat power | 25 kW at DT 10 K |
| Max. volume flow | 2,14 m³/h |
| Min./ max. operating temperature | - 5 bis 60 °C |
| Max. operating pressure | 6 bar |
| Max. resistance to glycol | 40% |
| Joints | Centellen® R WS 3825 flat sealing (30,0 x 22,5 x 2,0 mm) yellow |
| Primary connection | 1" thread flat joint |
| Secondary connection | All heating circuits with 3/4" external thread with Eurokonus, suitable for compression fittings |
| Bracket | Clamps with acoustic insulation, in accordance with DIN 4109 |

| Number of circuits | Length X without ball valve | Product no. |
|--------------------|-----------------------------|-------------|
| up to 7 circuits | 454 mm | 1600 0077 |
| up to 8 circuits | 504 mm | 1600 0078 |
| up to 9 circuits | 554 mm | 1600 0079 |
| up to 10 circuits | 604 mm | 1600 0080 |
| up to 11 circuits | 654 mm | 1600 0081 |
| up to 12 circuits | 704 mm | 1600 0082 |

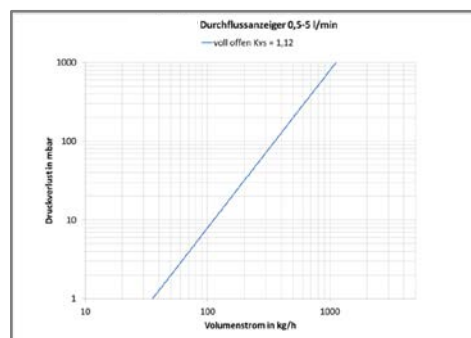
Pressure drop graph



Handling flow meter 0-5l/min



Handling valve



Accessories

| | |
|----------------------|-------------|
| Compression fittings | Product no. |
| 2 Units set 16 x 2mm | 1900 0018 |
| 2 Units set 20 x 2mm | 1600 0007 |

| | |
|--|-------------|
| Connetion group for geothermal or heating distributors | Product no. |
| Connetion group 3/4" | 2000 0769 |
| Connetion group 1" | 2000 0770 |

| | | |
|---|-------------|-----------|
| Geothermal sensor set | Product no. | |
| Prefabricated sensor set in corrugated tube | KTY 81 | PT 1000 |
| Sensor set 15 m in corrugated tube | 1600 0059 | 1693 0015 |
| Sensor set 20 m in corrugated tube | 1600 0060 | 1693 0020 |
| Sensor set 30 m in corrugated tube | 1600 0069 | 1693 0030 |
| Sensor set 40 m in corrugated tube | 1600 0073 | 1630 0041 |

| | | |
|--------------------------------|----------|---------|
| IS- EnergyRouter geothermal ad | DN32/40 | DN40/50 |
| Solar expansion vessel | 1 x 50l | 1 x 80l |
| Cap valve | 1 x 3/4" | 1 x 1" |
| Security group | 1x | 1x |

| | | |
|-------------|-----------|-----------|
| Product no. | 1491 3240 | 1491 4050 |
|-------------|-----------|-----------|

| | | | | | |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Kit IS-Sole | 6- 24 kW | 12-48 kW | 60kW | 90 kW | 120 lW |
| Solar expansion vessel | 1 x 50l | 1 x 50l | 1 x 80l | 1 x 80l | 1 x 105l |
| Cap valve | 1 x 3/4" | 1 x 3/4" | 1 x 1" | 1 x 1" | 1 x 1" |
| Geothermal pump Wilo | Stratos 30/1-12 | Stratos 40/1-12 | Stratos 50/1-12 | Stratos 65/1-12 | Stratos 80/1-12 |
| Safety valve | | | 1 x 3/4" | 1 x 3/4" | 1 x 1" |
| Security valve | 1x | 1x | | | |
| Manometer | | | 1 x 4 bar | 1 x 4 bar | 1 x 4 bar |
| Shut-off valves | 3 x DN32 | 3 x DN40 | 3 x DN50 | 3 x DN65 | 3 x DN80 |

| | | | | | |
|-------------|-----------|-----------|-----------|-----------|-----------|
| Product no. | 1490 0624 | 1490 0648 | 1490 0070 | 1490 0086 | 1490 0117 |
|-------------|-----------|-----------|-----------|-----------|-----------|



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